
2007 DRAFT
UPPER CLARK FORK RIVER BASIN
RESTORATION WORK PLAN

PREPARED BY:

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List of Acronyms

ADLC	Anaconda-Deer Lodge City-County Government
Advisory Council	Upper Clark Fork River Basin Remediation and Restoration Advisory Council
ARCO	Atlantic Richfield Company
B-SB	Butte-Silver Bow City-County Government
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CDSNT	Continental Divide Scenic National Trail
CFC	Clark Fork Coalition
CFR	Clark Fork River
CFWEP	Clark Fork Watershed Education Program
DEQ	Montana Department of Environmental Quality
DNRC	Montana Department of Natural Resources and Conservation
DOI	U.S. Department of Interior
EPA	U.S. Environmental Protection Agency
FWP	Montana Fish, Wildlife and Parks
LBR	Little Blackfoot River
MOU	Memorandum of Understanding
NRDP	Natural Resource Damage Program
RPPC	UCFRB Restoration Plan Procedures and Criteria
ROD	Record of Decision
TRC	Trustee Restoration Council
Tribes	Confederated Salish and Kootenai Tribes
UCFRB	Upper Clark Fork River Basin
USFS	U.S. Forest Service

1.0 EXECUTIVE SUMMARY

1.1 Background

The State of Montana obtained approximately \$130 million for restoration of injured natural resources in the Upper Clark Fork River Basin (UCFRB) through a partial settlement of its natural resource damage lawsuit against the Atlantic Richfield Company (ARCO) in 1999. In February 2000, the State released the *UCFRB Restoration Plan Procedures and Criteria (RPPC)* that provided the framework for expending these Restoration funds. The document was based on input from the UCFRB Remediation and Restoration Advisory Council (Advisory Council)¹ and public comment. Rather than embarking on a prescriptive process, the State elected to establish a grant process whereby various entities could apply for Restoration funds based on procedures and criteria set forth in the *RPPC*. The criteria are aimed at funding the best mix of projects that will restore or replace the natural resources that were injured, and/or services provided by those resources that were lost, due to releases of hazardous substances from ARCO and its predecessor's mining and mineral processing operations in the UCFRB. The State revised the *RPPC* in March 2002, January 2006, and January 2007.

The Montana Natural Resource Damage Program (NRDP) administers the UCFRB Restoration Grant process. UCFRB Restoration Grant eligibility requirements include:

Applicant Eligibility: Governmental entities, private entities and individuals are eligible to apply for UCFRB Restoration Grants.

Project Type Eligibility: Four types of projects are eligible for funding:

- Restoration projects that will restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and/or the services lost as a result of releases of hazardous substances by ARCO or its predecessors that were the subject of the Montana v. ARCO lawsuit.
- Planning projects that involve developing future grant proposals.
- Monitoring and research projects that pertain to restoration of natural resources in the UCFRB.
- Education Projects that pertain to the restoration or replacement of natural resources in the UCFRB.

Project Location Eligibility: Only projects that are located in the UCFRB are eligible for funding. Activities associated with education and research projects do not have to occur within the UCFRB, provided the proposed education or research project pertains to injured natural resources in the UCFRB.

¹ The Advisory Council consists of 12 citizen volunteers representing the public and various interest groups and 5 government representatives. A list of Advisory Council members is provided in Appendix E.

The State has awarded approximately \$54 million for 64 projects since December 2000. Information on these projects can be found on the Department of Justice website at www.doj.mt.gov under “Montana Lands” or upon request from the NRDP (406-444-0205).

1.2 Work Plan Overview

The *RPPC* sets forth the State’s process for evaluating and deciding on the funding of Restoration Grant proposals. As set forth in the *RPPC*, the NRDP submitted a *Pre-Draft Work Plan* to the Advisory Council, the U.S. Environmental Protection Agency (EPA), the U.S. Department of Interior (DOI), the Confederated Salish and Kootenai Tribes (Tribes), and other interested parties. Based on its review of and input on this pre-draft document from these various entities, the Trustee Restoration Council² directed the NRDP on the draft funding recommendations to be considered for public comment.

This *2007 Draft UCFRB Restoration Work Plan* describes the Trustee Restoration Council’s draft funding recommendations for the 2007 Restoration Grant applications. This *Draft Work Plan* is subject of a formal public comment period of 30 days that ends on Friday, October 5, 2007. Based on public comment on the *Draft Work Plan* and input from various entities throughout the funding selection process, the Advisory Council and Trustee Restoration Council will make final funding recommendations to the Governor in November 2007. A final funding decision by the Governor is expected in December 2007.

Section 3.0 of this *Draft Work Plan* contains a project summary, a map, and a criteria summary table for each project. Section 4.0 summarizes the draft project ranking and draft funding recommendations.

The following summarizes the various phases of the application submittal and evaluation process and describes the sections of this *Draft Work Plan* that are reflective of these phases.

- In January 2007, the NRDP distributed the 2007 grant application materials and conducted educational workshops on the application process.
- In March 2007, the NRDP received eight grant applications for a total Restoration Fund request of \$11,910,769, with \$9,626,245 requested for 2008 and \$2,284,524 requested for 2009. Appendix D provides the Budget Summary Tables for each project.
- In April 2007, the NRDP issued its minimum qualification determinations for the eight applications. All eight projects were judged as meeting all the minimum qualification criteria, as covered in Section 2.0. Copies of the minimum qualifications can be found in Appendix C.
- In April 2007, grant applicants presented their proposals to the Advisory Council.
- In June 2007, the Advisory Council toured grant proposal sites.

² The Trustee Restoration Council consists of the Governor’s Chief of Staff, the Attorney General, the Chairman of the Advisory Council, and the Directors of the State’s three natural resource agencies.

- In July 2007, the NRDP completed its staff evaluation and pre-draft funding recommendations and issued the *Pre-Draft Work Plan*. Appendix A contains the NRDP's detailed criteria narratives. These evaluations were based on application review guidelines contained in Appendix F that were derived from the criteria set forth in the *RPPC*. The NRDP compared the eight projects on a criterion-specific basis as provided in Appendix B. The NRDP then ranked the projects in order of preference for funding consideration based on these criteria comparisons. The NRDP recommended seven of the eight proposals for full funding. The NRDP did not recommend the eighth proposal for funding due to funding cap limitations.
- The NRDP presented the July 2007 *Pre-Draft Work Plan* to the UCFRB Advisory Council at its July 10, 2007 meeting. At its August 14, 2007 meeting, the Advisory Council voted to recommend all eight projects for full funding and to recommend increasing the 2007 funding cap from \$8.5 million to \$9.7 million so that all eight projects could be funded. Appendix E contains a summary of Advisory Council decisions and summary meeting minutes from three Advisory Council meetings specific to these projects.
- The NRDP received input from the Department of Interior (DOI) and Confederated Salish and Kootenai Tribes (Tribes) on this year's projects that is provided in Appendix E and summarized in the criteria narratives and summary tables on each project.
- At its August 16, 2007 meeting, the Trustee Restoration Council considered and concurred with the recommendations of the Advisory Council. The Trustee Restoration Council's draft funding recommendations that are subject of public comment and presented in Section 4 are:

Project	TRC Draft Funding Recommendations	
	Year 1	Year 2
1. Greenway	\$1,367,715	\$743,479
2. Milltown Sediment Removal	\$1,253,285	\$1,541,045
3. Thompson Park	\$988,402	
4. Big Hole Waterline	\$1,644,722	
5. Johnson/Cottonwood Creek	\$608,015	
6. Anaconda Water Studies	\$107,771	
7. Butte Waterline	\$2,417,003	
8. Anaconda Waterline	\$1,239,332	
Total Recommended Funding	\$9,626,245	\$2,284,524

A public meeting and hearing on this *Draft Work Plan* will be held on Wednesday, September 26, 2007 at the Butte War Bonnet Inn, located at 2100 Cornell Ave. The public may provide oral comments during this hearing or submit written comments to the NRDP on this document. Comments must be postmarked by Friday, October 5, 2007. Based on public comment on the

Draft Work Plan and input from various entities throughout the funding selection process, the Trustee Restoration Council will make funding recommendations to the Governor. A final funding decision by the Governor is expected in December 2007.

For more information on these meetings or this document, contact the NRDP at 406-444-0205 or via e-mail at **nrdp@mt.gov**.

2.0 MINIMUM QUALIFICATION DETERMINATIONS

The NRDP initially evaluated the eight applications according to the following minimum qualification criteria specified in the *RPPC*:

- That the application is completed fully and accurately and contains all necessary information.
- That the proposed project would restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources that were the subject of Montana v. ARCO.
- That the proposed project would be located in the UCFRB. This requirement does not apply to: (1) research or education projects, provided that the proposed research or education pertains to restoration of natural resources located in the UCFRB; (2) a project, or a portion thereof, that would be located outside of the UCFRB but would have the effect of restoring or significantly facilitating the restoration of natural resources or lost services of the UCFRB; and (3) projects to restore native trout, provided such projects are located in the Big Blackfoot River Basin and there is a showing that it would be impractical or uneconomic to restore such trout in the UCFRB.
- That the applicant has the ability, financial means, and other qualifications necessary to undertake the proposed project.
- That consideration or implementation of the proposed project would not interfere, potentially interfere, overlap, or partially overlap with the State's remaining claims in the Montana v. ARCO natural resource damage lawsuit or with the State's proposed restoration determination plans for the three sites still involved in that litigation. Those sites are Butte Area One, Smelter Hill Area Uplands and the Upper Clark Fork River. The proposed project must not interfere with the restoration work that will occur at the Milltown NPL site that is covered by the joint remediation/restoration Consent Decree.

The eight projects met minimum qualifications and were fully evaluated for Stage 1 and 2 criteria according to the *RPPC* procedures. Appendix C contains these minimum qualification determinations.

3.0 PROJECT SUMMARIES, MAPS, and CRITERIA SUMMARY TABLES

Table 1 summarizes the eight projects submitted. The total request for Restoration funds for these projects totals \$11,910,769, of which \$9,626,245 is requested for 2008 and \$2,284,524 is requested in 2009. Project summaries, maps and criteria summary tables follow for each project. The criteria summary tables contain a summary of the detailed criteria narratives evaluations contained in Appendix B.

Table 1. 2007 Restoration Project Requests

PROJECT BUDGET TABLE					
APPLICANT	PROJECT	FUNDING SOURCE	TOTAL BUDGET	YEARLY BUDGET	
				2008	2009
Anaconda-Deer Lodge County	East Sixth and East Seventh Water Main Replacements	NRDP	\$1,239,332	\$1,239,332	
		Other	\$75,156	\$75,156	
		Total	\$1,314,488	\$1,314,488	
Anaconda-Deer Lodge County	Water Metering and Distribution System Modeling Studies	NRDP	\$107,771	\$107,771	
		Other	\$6,247	\$6,247	
		Total	\$114,018	\$114,018	
Butte-Silver Bow Local Government	Big Hole Transmission Line Replacement	NRDP	\$1,644,722	\$1,644,722	
		Other	\$548,242	\$548,242	
		Total	\$2,192,964	\$2,192,964	
Butte-Silver Bow Local Government	Drinking Water Infrastructure Replacement – Year 7	NRDP	\$2,417,003	\$2,417,003	
		Other	\$268,556	\$268,556	
		Total	\$2,685,559	\$2,685,559	
Butte-Silver Bow Local Government	Thompson Park Improvement Project	NRDP	\$988,402	\$988,402	
		Other	\$628,756	\$628,756	
		Total	\$1,617,158	\$1,617,158	
Clark Fork Coalition	Milltown Sediment Removal Project	NRDP	\$2,794,330	\$1,253,285	\$1,541,045
		Other	\$0	\$0	
		Total	\$2,794,330	\$1,253,285	\$1,541,045
Greenway Service District	Silver Bow Creek Greenway	NRDP	\$2,111,194	\$1,367,715	\$743,479
		Other	\$0	\$0	
		Total	\$2,111,194	\$1,367,715	\$743,479
Powell County	Johnson Creek Greenway and Cottonwood Creek Outdoor Education Center	NRDP	\$608,015	\$608,015	
		Other	\$478,981	\$478,981	
		Total	\$1,086,996	\$1,086,996	
	Total	NRDP	\$11,910,769	\$9,626,245	\$2,284,524
		Other	\$2,005,938	\$2,005,938	\$0
		Total	\$13,916,707	\$11,632,183	\$2,284,524

Greenway Service District – Silver Bow Creek Greenway – 2007

Project Summary

The Greenway Service District (GSD) is requesting \$2,111,194 over two years (\$1,367,715 in 2008 and \$743,479 in 2009) mainly to restore aquatic and riparian resources along miles 11-18 of Silver Bow Creek. All of the proposed activities will be coordinated with remedial actions. The major actions planned are ecological improvements such as enhancement plantings, organic matter placement, and stream habitat improvements to restore remediated lands. The proposal also involves pursuing a land acquisition in the Silver Bow Creek floodplain, placement of up to four 75-foot pre-fabricated bridges along future trail stream crossings in Subarea 4, and land planning activities.

Subarea 3 Description and Major Restoration Components – see Figure 1 on page 8

Subarea 3 is five miles long (miles 11-15) and extends from Miles Crossing, which is about one mile east of Durant Canyon, through Durant Canyon to the Fairmont Bridge. Along Subarea 3, this proposal provides for additional organic matter and plantings of trees, shrubs and forbs on the 120 acres of remediated lands via coordination with DEQ remedial actions. Restoration costs over the two years are about \$0.5 million for Subarea 3. Remedial actions should begin in Durant Canyon in 2008 and be completed in 2009.

Subarea 4 Description and Major Restoration Components – see Figure 1 on page 8

Subarea 4 is seven miles long (miles 16-22) and extends from the Fairmont Bridge to Warm Springs Ponds. During 2008 and 2009, DEQ plans to remove tailings on 215 acres along miles 16 and 17. This grant provides for additional plants, organic matter, seeding, and stream habitat work along these excavated areas to achieve restoration goals via coordination with remedial actions. Restoration costs over the two years are about \$1.6 million for Subarea 4. The GSD also proposes to acquire 131 acres of the Golden Technologies land, located in mile 17, to complete land acquisition activities along the entire Silver Bow Creek corridor, and to install up to four bridges in Subarea 4 that will serve as stream crossings along the proposed Greenway Trail.

Past and Future Silver Bow Creek Greenway Grants

In the last six years, the GSD was awarded approximately \$10 million in Restoration Funds for development of Greenway trail and restoration of aquatic and riparian resources and services along the first 10 miles (Reaches A-J) and miles 17-19 of the 22-mile Silver Bow Creek. To date, about half the monies have been spent, mostly on aquatic and floodplain habitat improvements and on the Ramsay Flats tailings removal. The breakdown of costs for the past grants is 68% (\$6.8M) for ecological components; 22% (\$2.2M) for access components; and 7% (0.7M) for land acquisitions. The 2007 proposal budget has a similar proportionate breakdown for these major three fund components.

This aquatic and floodplain habitat work has occurred with extensive remedial coordination between the GSD, NRDP and DEQ. For example, DEQ contracts for organic matter placement

before contracting for seeding³ and NRDP, with GSD concurrence, pays DEQ for the work from past Restoration Fund allocations. In 2007, GSD plans to pave the first three miles of the trail and construct the Rocker and Whiskey Gulch trail heads in Subarea one (Reaches A-E, miles 1-5) once access arrangements are finalized with the new owner of RARUS railroad.

Completion of DEQ remediation is expected in 2010 or 2011. The majority of restoration efforts will also be completed by then. A grant request of \$2-3 million is expected in 2009 to complete ecological enhancements along the last three miles (20-22). A subsequent grant request is expected to complete the trail and access components.

Overall Application Quality: Fair. The majority of the application is well written and relatively clear in its intent. However, the application was general in nature and did not always focus on what information was necessary to address the criteria. Details for remedial action designs are not yet available, which makes some restoration design predictions difficult. Supplemental information was needed for the land acquisition planning and access components.

³ DEQ's seeding contract includes both remedy and restoration seed purchased by DEQ/NRDP's revegetation contractor, which is another example of remedy/restoration coordination.

<p align="center">Summary of RPPC Criteria Evaluation for Silver Bow Creek Greenway – 2007 Applicant: Greenway Service District (GSD)</p>	
CRITERIA	<p>The GSD seeks \$2,111,194 over two years, with \$1,367,715 requested for 2008 and \$743,479 requested for 2009, mainly to restore aquatic and riparian resources along miles 11-18 of Silver Bow Creek. This effort includes revegetation, organic matter placement, enhanced aquatic habitat, land acquisition, access feature placement, and monitoring activities.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends funding of this project for \$2,111,194 over a two year period, subject to a funding condition that requires NRDP approval of all land acquisitions and appraisals.</p> <p><u>Application Quality:</u> Fair</p>
1. Technical Feasibility	<p><u>Reasonably Feasible:</u> The GSD project will employ well-known and accepted technologies that have mostly proven successful in past efforts along Silver Bow Creek and have been adjusted for lessons learned. The success of the project is contingent on coordination with remedial activities, and the detailed designs for the ecological enhancements and bridge locations depend on future remedy design activities. The success of the land acquisition efforts that involve acquiring the 133-acre Golden Technologies parcel and completing all other land acquisitions needed for the Greenway trail corridor depends on the results of landowner negotiations and other land planning tasks to be conducted as part of the project.</p>
2. Costs:Benefits	<p><u>High Net Benefits:</u> The project will substantially benefit the injured natural resources of Silver Bow Creek by enhancing fish and wildlife habitat and the ecological and recreational services associated with these restored resources. Organic matter placement, plantings in the floodplain, and aquatic enhancements will accelerate recovery of these resources. The proposed land acquisitions and easements will provide lands for wetlands, public recreational uses, and protection of the remediated and restored floodplain corridor. The proposed bridges will facilitate continued development of the Greenway trail, which will provide for public access to the corridor and enjoyment of a variety of recreational opportunities in an ecologically-protective manner. The project provides for optimal coordination with remedy, thereby achieving significant cost savings.</p>
3. Cost-Effectiveness	<p><u>Likely Cost-Effective:</u> While the GSD did not provide a thorough analysis of alternatives, the NRDP considers the proposed enhancements as likely to be cost-effective given the reasonableness of the costs, combined with the sound approaches that are based on past similar efforts and coordination with the remedial actions. A multi-year funding request is appropriate for optimal coordination with remedy.</p>
4. Adverse Environmental Impacts	<p><u>Short-term Adverse Impacts with Mitigation:</u> The GSD will address short-term adverse water quality impacts during construction through best management practices. Long-term beneficial impacts to the environment will result from this project.</p>
5. Human Health and Safety	<p><u>No Significant Adverse Impacts:</u> The GSD will address potential short-term impacts to human health and safety during construction activities via implementation with standard safety plans.</p>
6. Results of Response Actions	<p><u>Positive Coordination:</u> This project positively coordinates with and augments remedial actions by enhancing both aquatic and terrestrial resources.</p>
7. Natural Recovery Potential	<p><u>Reduces Recovery Period:</u> The recovery time will be reduced by the proposed additional floodplain enhancements, which will accelerate the recovery of aquatic and wildlife habitat. Land acquisitions will also accelerate the recovery of injured resources by properly controlling public use, thereby protecting the remediated and restored areas.</p>

<p align="center">Summary of RPPC Criteria Evaluation for Silver Bow Creek Greenway – 2007 Applicant: Greenway Service District (GSD)</p>	
8. Applicable Policies and Laws	<u>Consistent/Sufficient Information Provided</u>
9. Resources of Special Interest	<u>Beneficial Impacts:</u> The project is expected to benefit natural resources of special interest, due to the improved fish and wildlife habitat, including wetlands. The DOI supports funding this project. The Tribes voted in support of funding this project and requested applicant consideration of the potential for encountering buried cultural features and/or artifacts during excavations.
10. Project Location	<u>Within Basin and Proximate:</u> All restoration activities associated with this proposal will be conducted at or near the injured resource areas of Silver Bow Creek.
11. Actual Restoration of Injured Resources	<u>Restoration/Other:</u> The majority of the project components and costs constitute actual restoration. Some project components contribute to restoration such as land acquisition.
12. Service Loss/Restored & Service Restoration	<u>Same and Similar:</u> The project will provide some of the same services as those lost due to injuries, including ecological services that restored habitat provides to fish and wildlife and recreational services such as fishing and hiking.
13. Public Support	<u>Two support letters:</u> From B-SB government and Project Green.
14. Matching Funds	None
15. Public Access	<u>Increased Access Beneficial:</u> The proposed land acquisition activities will allow the public to access and recreate along Silver Bow Creek in a manner protective of restored resources. Weed control activities associated with construction activities are properly planned and budgeted; future weed control will likely be addressed by remedial and GSD maintenance activities.
16. Ecosystem Considerations	<u>Positive:</u> The project will result in improvements to the headwaters of the Clark Fork River and benefits multiple natural resources.
17. Coordination & Integration	<u>Coordinates/Integrates:</u> This project fits well with the restoration priorities set out in the <i>Silver Bow Creek Watershed Restoration Plan</i> and coordinates with funded educational projects that are using Silver Bow Creek as an outdoor classroom.
18. Normal Government Functions	<u>Outside of Normal Government Function:</u> None of the project activities entail those that a governmental entity is obliged by law to conduct or would normally conduct.
19. Desirability of Public Ownership	<u>Restoration Beneficial:</u> Public ownership of or an easement interest in the Greenway corridor land provides major benefits to injured natural resources and provides replacement of lost services. These benefits outweigh the potential impacts to tax revenue and governmental services associated with public ownership.
20. Price	<u>Uncertain:</u> The price for land parcels or easements would be determined via appraisals conducted as part of the grants process. The GSD has used a reasonable basis to estimate these costs. NRDP approval of all land acquisitions and appraisal is a funding condition.

Clark Fork Coalition Milltown Sediment Removal Project

Project Summary

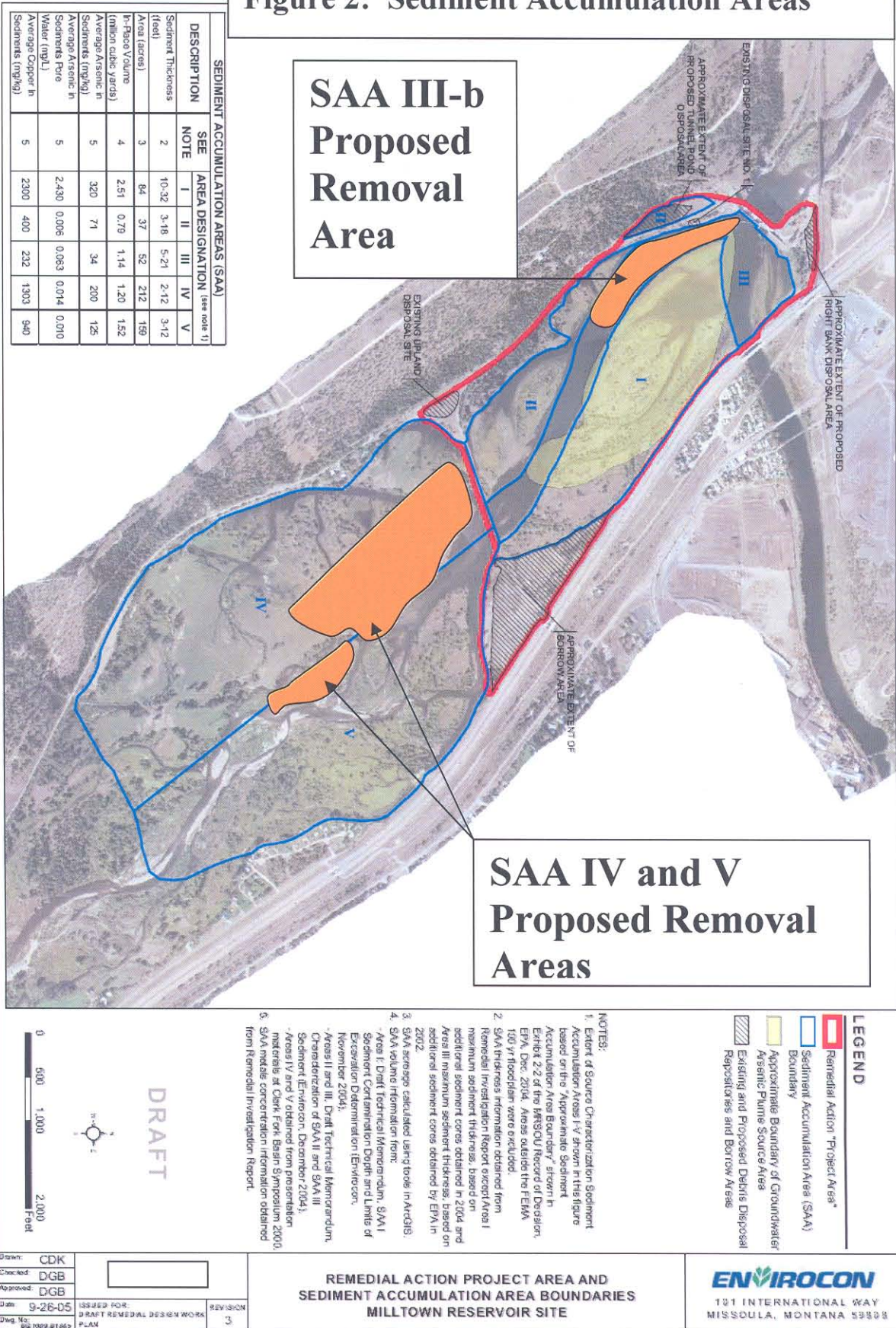
The Clark Fork Coalition (CFC) seeks \$2.8 million in Restoration Funds over two years for the removal and disposal of an additional 560,000 cubic yards (cy) of contaminated sediment from the Milltown reservoir. Removal of these sediments would restore aquatic and riparian resources of the Clark Fork River by allowing the development of a larger, more baseline floodplain to be established after the removal of the Milltown Dam under the EPA remedial action. The CFC proposes to hire Envirocon, Inc. to remove and haul these sediments to the Atlantic Richfield (AR) Waste Management Area, along with the 2.2 million cubic yards of sediments that they are removing under the Environmental Protection Agency (EPA) remedial action. The application indicates that the exact cost of this removal of additional sediments is uncertain and that the State will negotiate the price for this removal action with the parties responsible for the sediment removal at Milltown: AR, AIG, and their contractor Envirocon (Envirocon). The total project costs are projected to be \$2,794,330, with \$1,253,285 requested for Year 1 and \$1,541,045 requested for Year 2.

The sediments being proposed for removal are 360,000 cy within Sediment Accumulation Area (SAA) IIIB and 200,000 cy within SAA IV and V that are part of the Milltown Sediment Operable Unit located within the Milltown Reservoir area. Specifically, the SAA IIIB sediments lay beneath the current Clark Fork River channel between the Milltown Dam and approximately half-way to Duck Bridge. The SAA IV and V sediments are located upstream of Duck Bridge and are within the area where the State is planning restoration activities, where no remediation will occur. The removal of these sediments coordinates with the Milltown remediation and restoration schedules.

The CFC completed a Project Development Grant (PDG) in 2006 to evaluate alternatives for the removal of sediments within SAA IIIB. They used conclusions of the PDG in this application to estimate a cost that can be considered cost-effective.

Overall Application Quality: Good. The analyses of sediment removal alternatives developed in the PDG were effectively used in this application. The applicant did a thorough job completing the application and it was well written.

Figure 2: Sediment Accumulation Areas



	<p align="center">Summary of RPPC Criteria Evaluation for Milltown Sediment Removal Project (2007)</p> <p align="center">Applicant: The Clark Fork Coalition</p>
CRITERIA	<p>The Clark Fork Coalition (CFC) seeks about \$2.8 million in Restoration Funds over two years for the removal and disposal of an additional 560,000 cubic yards (cy) of contaminated sediment from the Milltown reservoir. The sediments being proposed for removal are 360,000 cy within Sediment Accumulation Area (SAA) IIIB and 200,000 cy within SAA IV and V areas of the reservoir. Total project costs are projected to be \$2,794,330, with \$1,253,285 requested for Year 1 and \$1,541,045 requested for Year 2.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends this project for full funding of \$2,794,330 over two years.</p> <p><u>Overall Application Quality:</u> Good</p>
1. Technical Feasibility	<p><u>Uncertain Feasibility:</u> The actual construction aspect of this project is technically feasible, as this type of work is currently being successfully implemented at the Milltown site under the remedial action. The uncertainties associated with this grant project concern whether or not the timing of this project will correspond correctly with the remedial schedule, which would result in significant cost savings, and whether the parties can agree on the cost to complete the work. The State hopes to have an agreement on the costs to remove and haul sediments from SAA IIIB, IV, and V to the AR Waste Management Area by the Governor's funding decision date.</p>
2. Costs:Benefits	<p><u>Potential Net Benefits:</u> The project would result in substantial restoration benefits associated with the removal of the additional contaminated sediments, which include a larger, more baseline floodplain and reduced sources of groundwater and surface water contamination, and other substantial benefits of open space, wetlands, natural areas, trails, and new recreation opportunities. The cost:benefit relationship of this project depends greatly on the costs developed through the negotiations with Envirocon, ARCO, and AIG for the removal of the additional sediments. If a cost at or below the requested \$2.8 million can be agreed upon, the cost:benefit relationship for this project is considered as net benefit.</p>
3. Cost-Effectiveness	<p><u>Likely Cost-Effective:</u> The CFC presented and thoroughly analyzed four alternatives in the application. The NRDP agrees that the preferred alternative is the best approach to remove the SAA IIIB, IV, and V sediments. The multi-year budgeting proposal will allow Restoration Funds to be available in order to coordinate this project with ongoing remediation and restoration actions. The preferred alternative offers cost-effective benefits, if a reasonable price at or below the dollar amount used for this application can be agreed to with Envirocon.</p>
4. Environmental Impacts	<p><u>Short Term Adverse Impacts with Mitigation:</u> Short term adverse impacts associated with construction activities would be properly addressed via the mitigation measures tied to the permitting process already planned for remedy and restoration construction.</p>
5. Human Health and Safety	<p><u>No Significant Adverse Impacts:</u> Potential human health and safety impacts would be addressed in conjunction with safety measures already planned for remedy and restoration construction.</p>
6. Results of Response Actions	<p><u>Positive Coordination:</u> The removal of the sediments could be coordinated with the remedial sediment removal that is already planned for the SAA I sediments. There is some uncertainty concerning the timing since the remedial action schedule is not completely set, but based on progress to date, this coordination can likely occur.</p>

	Summary of RPPC Criteria Evaluation for Milltown Sediment Removal Project (2007) Applicant: The Clark Fork Coalition
7. Natural Recovery Potential	<u>Reduces the Recovery Period:</u> The project would help restore the aquatic and riparian resources of the Clark Fork River near the confluence with the Blackfoot River.
8. Applicable Policies and Laws	<u>Consistent:</u> The CFC lists all the permits and approvals that may be needed for this project. However, since these projects fall within the remedial action area, they would be covered by the Superfund permit exemption clauses.
9. Resources of Special Interest	<u>Beneficial Impact:</u> The project can benefit natural resources of special interest to the Tribes and DOI, such as bull trout and wetlands. The DOI supports project funding. The Tribes voted in support of project funding and noted that the provisions in the Consent Decree documents provide for implementation of the proper procedures regarding Tribal Resources in the project area. The State has worked closely with the Tribes and DOI at the Milltown site and would continue to do so on this project.
10. Project Location	<u>Within UCFRB and Proximate:</u> This project is located within the Milltown Reservoir Sediment Operable Unit, the State's restoration planning project area for the Clark Fork and Blackfoot Rivers near Milltown, and the injured aquatic resources of the Clark Fork River.
11. Actual Restoration of Injured Resources	<u>Restoration:</u> The project constitutes actual restoration of the aquatic and riparian resources of the Clark Fork River near the confluence with the Blackfoot River. Removal of the additional sediments would facilitate and accelerate recovery of the channel, floodplain, riparian vegetation, and groundwater resources toward baseline conditions.
12. Service Loss/Restored & Service Restoration	<u>Same:</u> This project is a response to injuries directly associated with hazardous substance releases from the mining operations that occurred in the Butte and Anaconda areas. There is a direct connection between the proposed project and ecological and recreational services that were lost due to the Milltown Dam and the contaminated sediment that accumulated behind the dam.
13. Public Support	<u>Five support letters:</u> From Missoula County Commissioners, Milltown Redevelopment Group, Bonner Development Group, Trout Unlimited, and Friends of Two Rivers.
14. Matching Funds	None
15. Public Access	<u>Increased Access Beneficial:</u> The aspect of the project associated with the SAA IIIB sediments would improve site access since this area would no longer be a repository and could therefore be open to public access, assuming that they are acquired by a public entity.
16. Ecosystem Considerations	<u>Positive:</u> The project would have positive effects on multiple resources in the UCFRB.
17. Coordination & Integration	<u>Coordinates/Integrates:</u> The project considers the other restoration actions the State is proposing at the Milltown site, the County's redevelopment plan, and coordinates with the CFC's landownership plans for the area. Sediment removal from SAA IV and V would integrate with DEQ's TMDL program to reduce the sediment load in the Clark Fork River.
18. Normal Government Functions	<u>Outside of Normal Government Functions:</u> The proposed removal work is not required to be conducted or funded by any governmental entity.

Butte-Silver Bow Local Government Thompson Park Improvement Project

Project Summary

Butte-Silver Bow City/County, in cooperation with the U.S. Forest Service, requests \$988,402⁴ in Restoration Funds to improve recreational opportunities in Thompson Park near Butte and to improve natural resources along Blacktail Creek, a tributary of Silver Bow Creek that borders Thompson Park. As proposed, the total project costs are estimated at \$1,617,158, with \$628,756 proposed in matching funds.

Thompson Park is a 3,454-acre municipal park, located about 10 miles south of Butte in the Beaverhead-Deerlodge National Forest. Butte-Silver Bow and the U.S. Forest Service jointly manage the park. The Works Progress Administration built the majority of the park roads and recreation sites in the 1930's and 1960's respectively. The park historically was a popular recreational area for the community of Butte and area visitors. However, over time the park's infrastructure has greatly deteriorated and the poor condition of the Park's roads, trails, and bridges causes sedimentation to Blacktail Creek.

The four major components of the Restoration Fund involve: 1) improvements to nine dilapidated recreation sites, such as adding toilets and picnic tables; 2) replacement of three road access bridges and rehabilitation of 2.25 miles of road; 3) improvements to 2.5 miles of trail and abandoned railroad tunnel and trestle structures; and 4) land acquisition and easements. Most tasks are proposed to be designed and started in 2008 and completed in 2009. Almost all components of this project are within Thompson Park; several small projects are within a half mile of the Park.

In 2003, Butte-Silver Bow and the U.S. Forest Service applied to the NRDP for funding for improvements to trails and recreation facilities at Thompson Park and for natural resource enhancements both in and outside of the Park. Some of the project components proposed in 2003 are similar to the present requests; however, many components proposed then are not part of the present proposal. The 2003 project was not approved for funding.

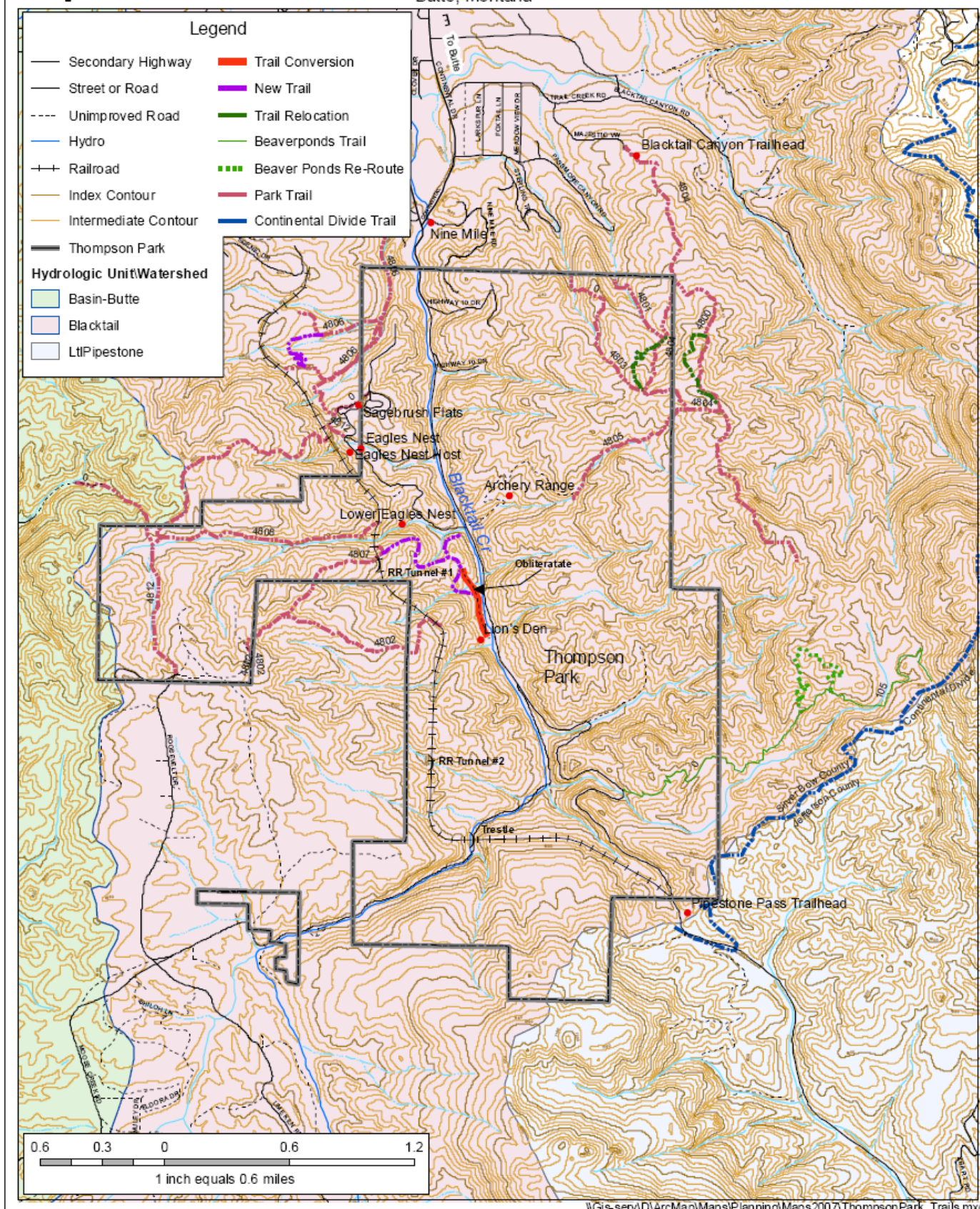
Overall Application Quality: Fair. The application is fairly complete, though some areas such as the budget and alternative analysis were lacking in details sufficient enough to address the criterion, thus requiring supplemental information.

⁴ This amount is \$34,585 more than what was in the application. The increase is due to math errors found in the original cost sheets. Total project costs and matching funds also increased from the original costs.

Thompson Park

Butte, Montana

Map B



<p align="center">Summary of RPPC Criteria Evaluation for Thompson Park Improvement Project Applicant: Butte-Silver Bow Local Government</p>	
CRITERIA	<p>Butte-Silver Bow County (B-SB), in partnership with the U.S. Forest Service (USFS), requests \$988,402 in Restoration Funds to improve recreational opportunities and improve natural resources in Thompson Park, 10 miles south of Butte. The project involves improvements to existing recreation sites, roads and bridges, trails and abandoned railroad structures, and land acquisition and easements in the Park. As proposed, total project costs are \$1,617,158, with \$628,756 in matching funds.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends funding of this project for \$988,402, subject to funding conditions requiring: 1) NRDP approval of all land acquisitions and appraisals and approval of any changes in proposed improvements that result from the NEPA process; and 2) that certain actions that could be funded with the USFS revenues from the timber sales will be delayed pending resolution of the timber sale issue, in order to leverage this funding. However, should the delays jeopardize the overall project implementation schedule of completion by 2009, the NRDP may fund the project without timber sale revenues, or may require timber sale revenue be used for certain future project-related actions eligible from timber sale revenues.</p> <p><u>Overall Application Quality:</u> Fair</p>
1. Technical Feasibility	<p><u>Reasonably Feasible:</u> Standard technologies will be implemented for all the improvements and the applicants have successfully conducted similar work. The NRDP believes the applicants have appropriately planned for the needed management and enforcement actions via an updated joint management agreement, annual operation and maintenance plans, bans on motorized vehicles, open fires and firewood cutting in the Park, locked gates, on-site caretaker, and increased patrols. The success of the land acquisitions depend on negotiations with landowners. The goals of this project, to improve and manage Thompson Park in an ecologically-protective manner, should be realized with the proposed improvements and if the planned management activities occur over the long-term.</p>
2. Costs:Benefits	<p><u>Net Benefits:</u> This project will provide substantial recreational benefits to a large public, with increased opportunities for picnicking, biking, hiking, open-space enjoyment, wildlife viewing, and fishing. With the improved recreational sites, the rails-to-trails feature, and the associated extensive hiking and biking trails network that would be accessible to people of all ages and abilities, Thompson Park has the potential to attract recreational users both locally and regionally. The proposed improvements will significantly reduce sediment inputs to and thereby improve the aquatic and riparian resources of Blacktail Creek. Overall the costs for each of the four main components are reasonable and the planned expenditures will result in net benefits to natural resources and the public's use and enjoyment of natural resources.</p>
3. Cost-Effectiveness	<p><u>Likely Cost-Effective:</u> While a thorough analysis of alternatives was not provided, based on the supplemental information provided and given the reasonableness of the costs, the NRDP considers the project to likely be cost-effective. The chosen alternatives for the proposed improvements are appropriately designed to minimize environmental disruption and to maximize longevity, reuse of existing access features, public accessibility and use, and natural resource benefits.</p>
4. Adverse Environmental Impacts	<p><u>Short-term Adverse Impacts with Mitigation:</u> The applicants properly plan for needed permits and mitigation of short-term environmental impacts during construction, such as increased turbidity in Blacktail Creek. In addition, the applicants will conduct a NEPA analysis of the proposed improvements.</p>
5. Human Health and Safety	<p><u>No Significant Adverse Impacts:</u> Short-term impacts to human health and safety will be addressed by implementing standard worker safety plans and traffic control plans during construction.</p>
6. Results of Response Actions	<p><u>Consistent:</u> The project will not interfere or duplicate the results of any known EPA Superfund actions.</p>

<p align="center">Summary of RPPC Criteria Evaluation for Thompson Park Improvement Project Applicant: Butte-Silver Bow Local Government</p>	
7. Natural Recovery Potential	<u>May Reduce the Recovery Period:</u> The project will improve aquatic resources of Blacktail Creek, which can augment the recovery of the Silver Bow Creek fishery.
8. Applicable Policies and Laws	<u>Consistent/Sufficient Information Provided:</u> The applicant identified and adequately planned for necessary permits. The NEPA may result in changes to the proposed alternatives that require NRDP approval.
9. Resources of Special Interest	<u>Beneficial Impact:</u> The project can benefit natural resources of special interest to the Tribes and DOI, given the expected benefits to the aquatic resources of Blacktail Creek. The DOI supports project funding. The Tribes voted in support of funding the project and requested applicant consideration of the potential for encountering buried cultural features and/or artifacts during excavations. The applicants provide for proper consultation regarding historic and cultural sites.
10. Project Location	<u>Within Basin and Proximate:</u> The project is mostly in Thompson Park about 10 miles south of Butte.
11. Actual Restoration of Injured Resources	<u>May Contribute to Restoration:</u> While the project does not involve the direct restoration of injured resources, it may contribute to the restoration of the Silver Bow Creek fishery.
12. Service Loss/Restored & Service Restoration	<u>Same/Similar:</u> The project will provide some of the same recreational services that were lost as a result of natural resource injuries such as hiking, picnicking, wildlife viewing, and open space enjoyment.
13. Public Support	<u>13 Support Letters:</u> From the USFS, the Governor's Office of Economic Development, B-SB Chief Executive, B-SB Chamber of Commerce, B-SB Parks and Recreation, MT Tech, Project Green, Office of the Sheriff, Butte Rotary Club, Clark Fork Watershed Education Program, Butte Local Development Corporation, Pete Madison, and the East Ridge Foundation.
14. Matching Funds	<u>33% Match as revised by NRDP:</u> The applicants proposed matching funds of \$628,756; however, the NRDP does not consider \$132,080 of this as a direct match for the improvements/acquisitions that are subject of the Restoration Fund request. The \$496,676 of allowable match is 50% in-kind and 50% cash match.
15. Public Access	<u>Increased Access Beneficial:</u> Substantial benefits will occur via the new and enhanced public access created by this project. The applicants have properly planned for the needed weed control and governmental services to support the increased use of the Park, estimated at 15,000 recreation visitor-days per season.
16. Ecosystem Considerations	<u>Positive:</u> The project addresses multiple resource problems and will improve aquatic resources by reducing sediment input to Blacktail Creek, which is a headwater tributary of Silver Bow Creek.
17. Coordination & Integration	<u>Coordinates/Integrates:</u> The project fits well with priorities set out in the <i>Silver Bow Creek Watershed Restoration Plan</i> coordinates with other trails outside the Park on public lands and with the Clark Fork Watershed Education Program.
18. Normal Government Functions	<u>Within but Augments Normal Government Functions:</u> Restoration funding will result in improvements that are not required by law and for which funding is presently insufficient to implement the project. The proposed capital improvements go well beyond routine operation and maintenance activities that are typically funded with assistance of grant funds. The applicants are providing a significant match of 33%.
19. Desirability of Public Ownership	<u>Replacement Beneficial:</u> The 40 acres of increased land in public ownership provides recreational opportunities for Butte and other communities that have been impacted by natural resource injuries. The land purchases involve a minimal increase in demand for governmental services and some reduction in tax revenues. The acquisition benefits outweigh these impacts.
20. Price	<u>Uncertain:</u> The price for land parcels or easements would be determined via appraisals conducted as part of the grants process. The applicants have used a reasonable basis to estimate these costs. NRDP approval is required for the land acquisitions and appraisals.

Butte-Silver Bow Local Government Big Hole Transmission Line Replacement

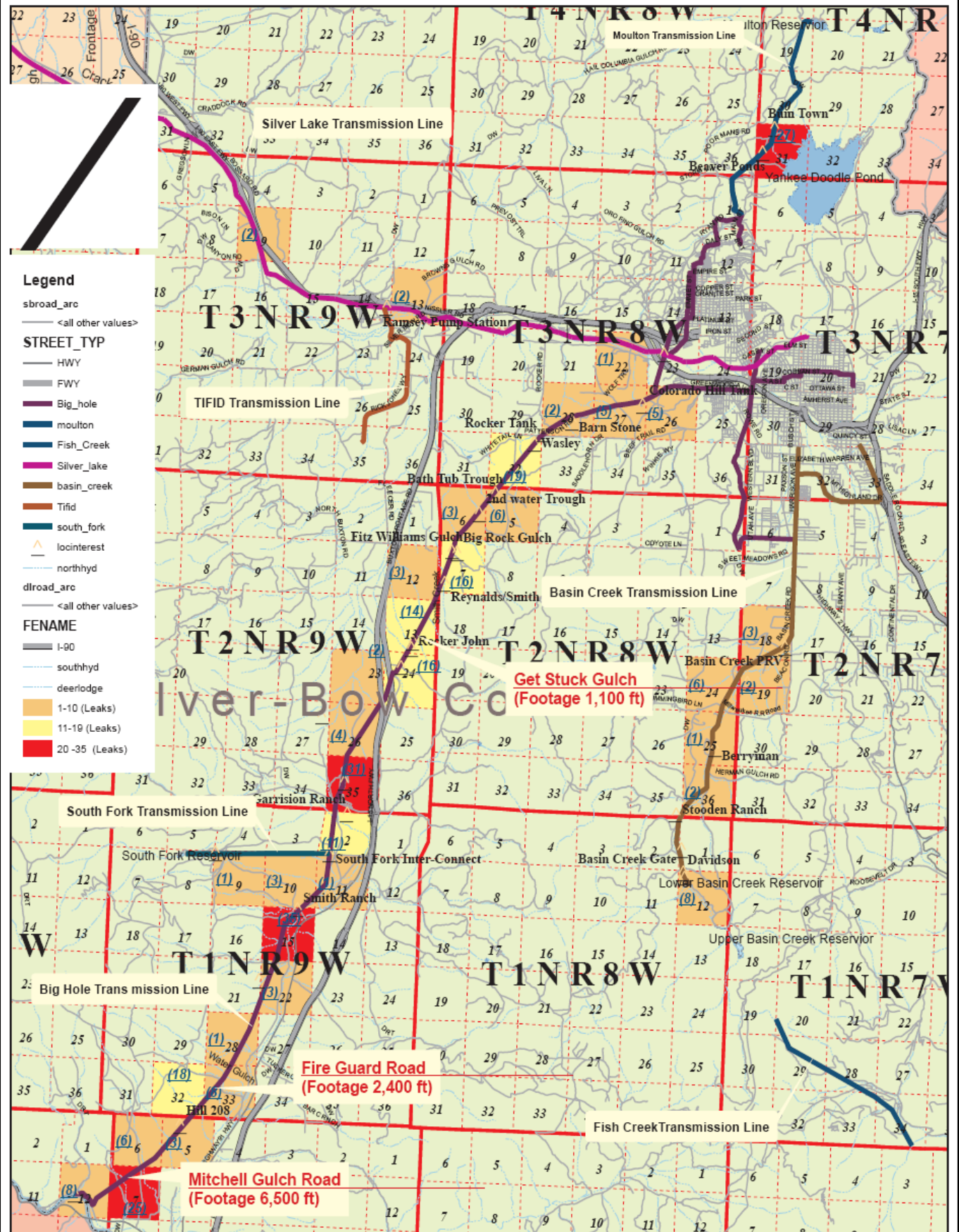
Project Summary

Butte Silver Bow City County (B-SB) proposes to replace 10,000 feet of dilapidated transmission lines that carry water from the Big Hole River to Butte. Total project costs are \$2,192,963, with \$1,644,722 requested in Restoration Funds and \$548,241 in matching funds. Approximately 60% to 80% of Butte's water supply comes from the Big Hole River, which is 22 miles south of Butte. The Big Hole is also Rocker's main water source.

Butte's bedrock aquifer is so severely injured that natural recovery will not occur for thousands of years, as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water storage, capacity and transport services have been lost for thousands of years. The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock groundwater injuries in Butte. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean bedrock groundwater in much of the City.

Overall Application Quality: Good. The application is fairly complete, though some areas were lacking in details sufficient enough to address the criterion, thus requiring supplemental information.

Butte-Silver Bow Transmission Main Leaks



Summary of RPPC Criteria Evaluation for Big Hole Transmission Line Replacement Applicant: Butte-Silver Bow Local Government	
CRITERIA	<p>Butte-Silver Bow City/County (B-SB) proposes to replace 10,000 feet of corroded transmission water lines from the Big Hole River, which is the main water source for the City of Butte and community of Rocker. Total project costs are \$2,192,963, with \$1,644,722 requested in Restoration funds and \$548,241 in matching funds.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends this project be funded for the requested \$1,644,722.</p> <p><u>Overall Application Quality:</u> Good</p>
1. Technical Feasibility	<u>Reasonably Feasible:</u> The proposed design and construction tasks are technically feasible and the selected approach is likely to achieve the stated objectives. B-SB will use county crews to replace the waterline and employ standard construction methods and materials to implement the project. B-SB has the needed experience with placement of water lines to complete this project.
2. Costs:Benefits	<u>Net Benefits:</u> This project offers substantial benefits to Butte and Rocker residents. The pipeline is unquestionably in critical need of repair, and the project would fix 10% of the total line in three sections that have some of the worst leaks. Benefits include improved delivery of a reliable drinking water source; reduced demand on water resources; reduced water pumping, treating, and transportation costs; reduced repair costs; and improved flows and fire protection.
3. Cost-Effectiveness	<u>Likely Cost-Effective:</u> While a thorough alternatives analysis was not provided, the NRDP believes that completing this project as proposed is likely a cost-effective alternative to addressing problems with the water distribution system that are specific to the Big Hole transmission lines. B-SB proposes to use its own crews in order to provide matching funds and have the needed controls associated with the treatment plant. Based on similar work conducted in-house, this approach appears cost-effective.
4. Adverse Environmental Impacts	<u>No Significant Adverse Impacts:</u> This project does not present any adverse impacts on the environment. B-SB will reclaim disturbed areas.
5. Human Health and Safety	<u>No Significant Adverse Impacts:</u> B-SB will adequately address any impacts to the human environment during construction, such as worker accidents, dust, and noise, by following safety guidelines of the Montana Public Works and Standard Specifications.
6. Results of Response Actions	<u>Consistent:</u> The project will not interfere or duplicate the results of any known EPA Superfund actions.
7. Natural Recovery Potential	<u>No Effect on Recovery Period:</u> This replacement project will not affect Butte's aquifer recovery time.
8. Applicable Policies and Laws	<u>Consistent/Sufficient Information Provided:</u> The applicant has provided sufficient information on the applicable requirements needed to complete this project.

Summary of RPPC Criteria Evaluation for Big Hole Transmission Line Replacement Applicant: Butte-Silver Bow Local Government	
9. Resources of Special Interest	<u>No Impact</u> : The project is not likely to impact natural resources of special interest or concern. The DOI does not object to funding the project. The Tribes voted in support of funding the project and requested applicant consideration of the potential for encountering buried cultural features and/or artifacts during excavations. B-SB will need to consult with appropriate entities regarding the presence of historic or cultural resources.
10. Project Location	<u>Partly Outside the Basin but Serves the Basin</u> : About half of the Big Hole transmission line is in the Basin and about half is south of the Basin boundary at the Continental Divide. The pipeline services water users that reside in the UCFRB.
11. Actual Restoration of Injured Resources	<u>No Restoration</u> : This project replaces services of injured groundwater resources that cannot be restored and thus constitutes compensatory restoration.
12. Service Loss/Restored & Service Restoration	<u>Same</u> : The project replaces lost services to property owners and other members of the public in Butte who could utilize the bedrock aquifer if it was not injured.
13. Public Support	<u>7 Support Comments</u> : From the B-SB Chief Executive, B-SB Water Treatment Plant manager, B-SB Fire Services, B-SB Local Development Corporation, Trout Unlimited, Port of Montana, and Project Green.
14. Matching Funds	<u>25% Match</u> : B-SB will contribute \$548,241, with \$470,876 for in-kind labor and \$77,365 for contracted services.
15. Public Access	Not Applicable
16. Ecosystem Considerations	<u>Positive</u> : The project will conserve water and therefore reduce power requirements for pumping and treating water.
17. Coordination & Integration	<u>Coordinates/Integrates</u> : The project coordinates with other B-SB waterline projects.
18. Normal Government Functions	<u>Within but Augments Normal Government Functions</u> : This project augments normal government function because communities typically rely on a combination of grant funds and user fees to fund such projects and because of the pervasive groundwater contamination underlying Butte. Given the 25% match, the NRDP believes it acceptably augments normal government function.

Powell County
Johnson Creek Recreational Trail and Cottonwood Creek Outdoor Native
Education Center

Project Summary

Powell County requests \$608,015 in Restoration Funds to enhance natural resource-based recreational and educational opportunities in the Deer Lodge Valley. Powell County developed this proposal via a Project Development Grant (PDG) funded in 2006 to evaluate trail and educational center alternatives.

The project primarily involves the design and construction of a two-mile recreational trail along Johnson Creek and an outdoor education center along Cottonwood Creek. Features include a trail to improve and expand public access to both creeks, a handicap accessible fishing access site, and outdoor educational facilities and signage. The educational component of the project will provide opportunities for both children and adults to understand the ecosystem and enhance stewardship of natural resources. Powell County is proposing matching funds totaling \$478,981 for a total project cost of \$1,086,996.

Overall Application Quality: Fair. The application was fairly complete, though it lacked an adequate level of detail in some areas. The alternatives analysis needed more details and investigation as well as costs. Supplemental information was required to complete the evaluation and was provided in a timely manner.



1 - Grant-Kohrs Ranch Entrance

2 - Ex. Johnson Ck. Bridge & Overlook

3 - Cottonwood Creek Native Ed. Center

4 - Clark St. Fishing Access

5 - Maverick Lane Trailhead

6 - County Pond & Overlook

LEGEND

- Main Trail
- - - Connector Trail

Overview Map

Johnson Creek Recreation Trail &
Outdoor Native Education Center
Deer Lodge, Montana

Kirk Engineering & Natural Resources, Inc.

Kent Watson & Associates - Landscape Architecture

Missoula, MT - 3/1/07

	<p align="center">Summary of RPPC Criteria Evaluation for the Johnson Creek Trail and Cottonwood Creek Outdoor Native Education Center (2007) Applicant: Powell County</p>
CRITERIA	<p>Powell County requests \$608,015 in Restoration Funds to enhance natural resource-based recreational and educational opportunities in the Deer Lodge Valley. The project involves the design and construction of a two-mile recreational trail with interpretive signage along Johnson Creek and an outdoor education center along Cottonwood Creek that includes a handicap fishing access site, a trail with interpretive signage, and 9 learning stations. As proposed, total project costs are \$1,086,996, with \$478,981 in matching funds.</p> <p><u>Draft Funding Recommendations:</u> The TRC recommends this project for full funding for \$608,015, subject to funding conditions that require NRDP approval of easements and any reappraisals and require public outreach activities be performed by Powell County or their designated project manager.</p> <p><u>Overall Application Quality:</u> Fair</p>
1. Technical Feasibility	<p><u>Reasonably Feasible:</u> Powell County properly identifies the multitude of tasks and approvals needed to design and construct the proposed facilities, complete needed acquisitions and easements, and develop interpretive signage and lesson plans. While the project designs are conceptual, the final designs will be appropriately based on input from the public, teachers, the Clark Fork Watershed Education Program (CFWEP), and NRDP. Powell County and Powell County High School have committed to maintaining the proposed facilities. A few uncertainties do exist regarding the success of needed acquisitions and outreach efforts and the ability to maintain usage and interest in the education center when the public outreach is discontinued. The outreach and acquisition uncertainties can likely be resolved and are addressed via the two funding conditions stated above and the County's indicated approval processes. Thus the project is likely to achieve its goals.</p>
2. Costs:Benefits	<p><u>Net Benefits:</u> The expected recreational benefits of this project include increased public access and natural resource-based recreational opportunities, such as hiking, fishing, open-space enjoyment, and bird-watching to a large public, given the project area location in the middle of Deer Lodge. The educational benefits of the project include providing students and adults an understanding of natural resources and the remediation and restoration efforts taking place in the UCFRB, via hands-on curriculum for the outdoor education center and interpretive signs throughout the Center and along the Johnson Creek Trail. The project will provide substantial benefits to the public's use and enjoyment of natural resources at a reasonable cost, particularly given the low acquisition costs.</p>
3. Cost-Effectiveness	<p><u>Likely Cost-Effective:</u> While the County did not provide a thorough analysis of alternatives, the NRDP believes the level of effort and costs of the proposed Johnson Creek trail and the Cottonwood Creek Education Center are reasonable and the proposed approach for both components is sound.</p>
4. Environmental Impacts	<p><u>Short-Term Adverse Impacts with Mitigation:</u> A potential exists for some short-term impacts to the environment associated with construction activities; however, the County is prepared to acquire the proper permits and, with the recommended mitigation efforts, these impacts will be minimal.</p>
5. Human Health and Safety	<p><u>No Significant Adverse Impacts:</u> Mitigation and safety measures will be implemented to minimize any impacts associated with construction activities such as dust and noise.</p>
6. Results of Response Actions	<p><u>Consistent:</u> The implementation of the proposed recreational and educational enhancements would not interfere or duplicate the results of Superfund response actions. Neither component is within the historic 100-year floodplain of the Clark Fork River nor within a tributary reach that will receive remedial action.</p>
7. Natural Recovery Potential	<p>No Effect</p>

	<p align="center">Summary of RPPC Criteria Evaluation for the Johnson Creek Trail and Cottonwood Creek Outdoor Native Education Center (2007) Applicant: Powell County</p>
8. Applicable Policies and Laws	<u>Consistent</u> : Powell County has appropriately identified and planned for obtaining the needed permits and plans to conduct needed weed management activities. Legal access easements must be obtained for the Johnson Creek trail.
9. Resources of Special Interest	<u>No Impact</u> : This project is not likely to impact natural resources of special concern. The DOI does not object to funding the project. The Tribes voted in support of funding the project and requested applicant consideration of the potential for encountering buried cultural features and/or artifacts during excavations. The County indicates that if historical or cultural features are identified via a database search or during construction activities, the proper agencies will be consulted.
10. Project Location	<u>Within UCFRB and Proximate</u> : The project would be within the City of Deer Lodge and near the injured resources of the Clark Fork River.
11. Actual Restoration of Injured Resources	<u>No Restoration</u> : The construction of the trail is a replacement project and not intended to accomplish restoration of an injured resource. The educational aspects of the project may indirectly contribute to restoration by promoting stewardship of those resources.
12. Service Loss/Restored & Service Restoration	<u>Similar</u> : The project will replace lost or impaired services. Recreational enhancements, such as a trail along Johnson Creek and a handicap access fishing site along Cottonwood Creek, would enhance recreational services such as fishing, hiking, bird watching, and open space enjoyment that are considered equivalent to the recreational services lost that were the subject of <u>Montana v. ARCO</u> . The educational components can enhance stewardship of natural resources and thereby enhance natural resources and the services they provide.
13. Public Support	<u>Nine support letters</u> : From the Powell County Superintendent, City of Deer Lodge, Clark Fork Coalition, Powell County Commission, Watershed Restoration Council, Deer Lodge Valley Conservation District, Powell County Museum and Art Foundation, the Clark Fork Watershed Education Program, and Gary and Dawn Chilcott.
14. Matching Funds	<u>8% (5% in-kind), as revised by the NRDP</u> : Powell County proposed matching funds of \$478,981; however, the NRDP does not consider \$425,431 of this as a direct match for the activities that are subject of the Restoration Fund request. Of the remaining \$53,550 in acceptable match, \$33,550 is in-kind match and \$20,000 is cash match.
15. Public Access	<u>Increased Access Beneficial</u> : The project will increase public recreational access to Johnson and Cottonwood creeks. Powell County properly plans for the needed weed control and other maintenance activities associated with this increase.
16. Ecosystem Considerations	<u>Positive</u> : Ecosystem considerations are not relevant to the recreational service aspects of this project. The educational facilities can contribute to furthering the knowledge of children and adults about ecosystem concepts and stewardship.
17. Coordination & Integration	<u>Coordinates/Integrates</u> : The project coordinates with the approved FEMA flood mitigation project and the Deer Lodge Trail project and integrates with the CFWEP, which will develop lesson plans and assist with design.
18. Normal Government Functions	<u>Outside of Normal Government Functions</u> : No governmental entity is funded or required to conduct the planning and development of the proposed trail system or outdoor education features.
19. Desirability of Public Ownership	<u>Replacement Beneficial</u> : The small acquisitions for the education center that entail two homes and one vacant lot would derive substantial public benefits, as described under criterion #2, that are considered to outweigh the reduction of tax revenues, which currently totals \$2,628, and a minor increase in demand for governmental services associated with these acquisitions.
20. Price	<u>Reasonable</u> : The total appraised price for all three properties, based on fair market value, is \$100,200. The NRDP has reviewed and approved these appraisals. A new appraisal, subject to NRDP approval, would be needed to validate a purchase price for any of the parcels that is above the appraised values provided in the application.

Anaconda-Deer Lodge County Water Metering and Distribution System Modeling Studies

Project Summary

Anaconda-Deer Lodge City County (ADLC) proposes to conduct a water metering study and a distribution system modeling study. These studies will be used by ADLC to predict, prioritize and plan future water conservation activities and educate the public on the benefits of water metering. The project costs are \$107,771 in Restoration Funds and ADLC will provide \$6,247 in matching funds for a total cost of \$114,018.

Anaconda is located adjacent or partially within the 40 square miles of groundwater contamination associated with the Anaconda Regional Water, Waste, and Soils Operable Unit. Groundwater resources are somewhat limited because the upper portion of the alluvial groundwater aquifer east of Anaconda is contaminated with metals associated with past mining activities at levels above water quality standards. The 1995 State of Montana *Anaconda Groundwater Injury Assessment Report* supports this claim of groundwater contamination east of Anaconda. Also, the 1998 *Anaconda Regional Water, Waste, and Soils Operable Unit Record of Decision* indicates about 30 square miles of contaminated bedrock groundwater to the north and south of the City.

Overall Application Quality: Good. ADLC's application was well written, however, it lacked details in some sections, thus requiring supplemental information.

Summary of RPPC Criteria Evaluation for Water Metering and Distribution System Modeling Studies Applicant: Anaconda Deer Lodge County (ADLC)	
CRITERIA	<p>Anaconda-Deer Lodge City County (ADLC) proposes to conduct a water metering study for \$49,970 and a distribution system modeling study for \$53,901. ADLC will use these studies to predict, prioritize, and plan future water conservation activities and educate the public on the benefits of water metering. Total project costs are \$114,018, with \$107,771 requested in Restoration Funds and \$6,247 in matching funds.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends this project be funded for the requested \$107,771.</p> <p><u>Overall Application Quality:</u> Good</p>
1. Technical Feasibility	<p><u>Reasonably Feasible:</u> ADLC seeks to conduct an engineering study of and associated public outreach on system-wide water metering to allow fiscal planning for future metering and to prepare a current computer-based model of the water system to allow a theoretical analysis of proposed improvements. The NRDP has a reasonable degree of confidence that these studies can be completed and these project goals can be met.</p>
2. Costs:Benefits	<p><u>Commensurate Benefits:</u> The water metering study and associated public outreach activities will result in a report on metering alternatives and recommendations. The benefits of this study depend on whether system-wide metering is implemented, which is uncertain. The water distribution study will result in a hydraulic computer model that can be used to help identify water leakage problems and to better predict, prioritize, and plan future water conservation activities. This model could yield substantial benefits in a short amount of time by better planning and use of limited funds for water conservation projects and is thus considered of net benefit. The overall benefit of the entire project is negatively affected by the uncertainty of the implementation system-wide metering; however, the NRDP judges the overall benefit of the project as commensurate with the cost of the proposal.</p>
3. Cost-Effectiveness	<p><u>Likely Cost-Effective:</u> The water metering study is needed to conduct public education, update implementation costs, and complete technical analysis prior to implementation of system-wide metering. The computer model is needed to identify and prioritize water main replacement projects. Together these studies provide the planning needed to cost-effectively maximize ADLC's future water conservation activities.</p>
4. Adverse Environmental Impacts	<p><u>No Adverse Impacts:</u> These studies will have no adverse impacts to the environment. They will potentially benefit water conservation by improving water management and prioritizing future water projects.</p>
5. Human Health and Safety	<p><u>No Adverse Impacts:</u> These studies do not present any adverse impacts to the human environment. They will potentially benefit human and health and safety by identifying critical improvements to the water system.</p>
6. Results of Response Actions	<p><u>Consistent:</u> The project will not interfere or duplicate the results of any known EPA Superfund actions.</p>
7. Natural Recovery Potential	<p><u>No Effect on the Recovery Period:</u> This replacement project will not affect the groundwater recovery period.</p>

<p align="center">Summary of RPPC Criteria Evaluation for Water Metering and Distribution System Modeling Studies</p> <p align="center">Applicant: Anaconda Deer Lodge County (ADLC)</p>	
8. Applicable Policies and Laws	<u>Consistent/Sufficient Information Provided:</u> ADLC has provided sufficient information on the applicable requirements needed to complete the proposed studies.
9. Resources of Special Interest	<u>No Impact:</u> The project involves studies that will not adversely impact these resources of special interest. The DOI supports project funding. The Tribes voted in support of funding the project.
10. Project Location	<u>Within Basin and Proximate:</u> The project study area is in Anaconda within and adjacent to injured groundwater resource areas.
11. Actual Restoration of Injured Resources	<u>No Restoration:</u> This project constitutes replacement of lost services because it replaces drinking water lost in the area as a result of contamination where cleanup is infeasible.
12. Service Loss/Restored & Service Restoration	<u>Same:</u> This project replaces services lost; injured groundwater resources somewhat limit ADLC's potential sources for water development, thus making conservation of existing sources an effective means of enhancing its water resources.
13. Public Support	<u>35 Support Comments:</u> From the ADLC Council of Commissioners, the Anaconda Project Facilitators, Community Hospital of Anaconda, Deer Lodge County Head Start, United Methodist Church, six businesses, and 24 residents.
14. Matching Funds	<u>5.5% Match:</u> ADLC proposes an in-kind match of \$6,247 for administration, coordination, water system records retrieval for service line numbers/types and distribution system mapping for modeling inputs, hydrant flow tests for model calibration, and participation in public education forums.
15. Public Access	Not Applicable
16. Ecosystem Considerations	<u>Positive:</u> The studies should lead to water conservation and reduced power requirements for pumping and treating water, which are broad ecosystem concepts that improve natural resources and should ensure that future projects are prioritized correctly.
17. Coordination & Integration	<u>Coordinates/Integrates:</u> The proposed studies coordinate well with other studies, such as the Montana Rural Water System rate study and the water system leak study funded by Restoration Funds and potentially coordinate with future water main replacement projects.
18. Normal Government Functions	<u>Substantially Augments Normal Government Functions:</u> The NRDP considers this proposal as one that augments, not replaces, normal government function because communities typically rely on grant funds to assist in funding such work and also because the proposal is an effective way to compensate the community for extensive injuries to the Anaconda area groundwater resources that were covered under <u>Montana v. ARCO</u> . Due to the low match of 5.5%, this proposal substantially augments normal government function.

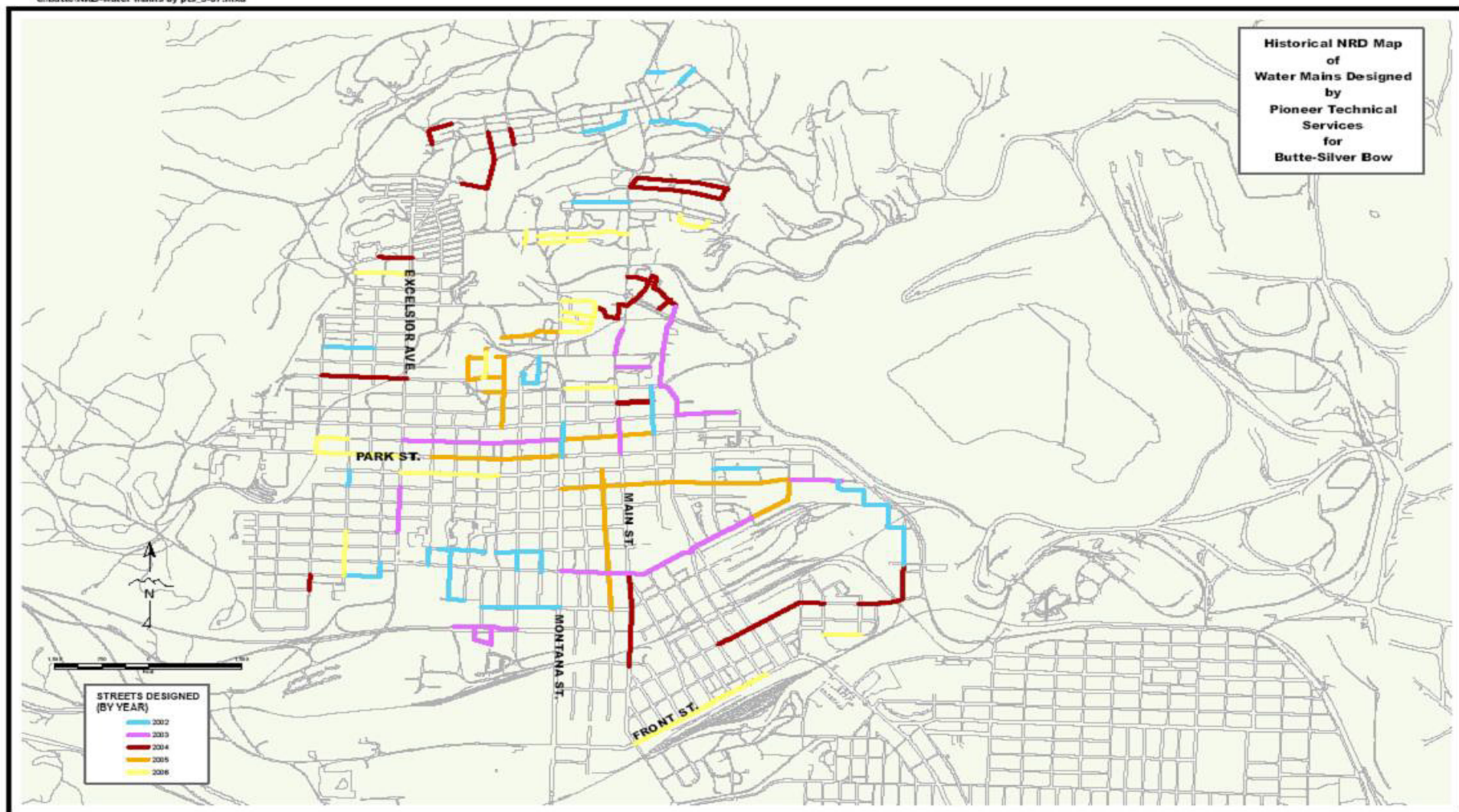
Butte-Silver Bow Local Government Drinking Water Infrastructure Replacement – Year Seven

Project Summary

Butte-Silver Bow City/County (B-SB) proposes to replace inadequate water distribution lines in the city of Butte. The proposal is to replace approximately 17,000 feet of waterline in 2008 at a cost of \$2,685,559, with \$2,417,003 requested in Restoration Funds and \$268,556 in matching funds.

Butte's bedrock aquifer is contaminated throughout a seven square mile area of the City and these distribution lines overlay that aquifer. This aquifer is so severely injured that natural recovery will not occur for thousands of years, as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water and its storage capacity and transport services have been lost for thousands of years. The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock groundwater injuries in Butte. Butte is asking for repair of inadequate distribution lines only in the area that has bedrock injury. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean bedrock groundwater in much of the City.

This proposal is Year 7 of an intended 15-year funding request to the NRDP by B-SB for waterline replacement. The Governor has approved funding for year 1 through year 6 totaling \$8,080,364 and about 66,800 feet of waterline has been replaced. If all 15 years of the plan are implemented, B-SB estimates the cost to the Restoration Fund to be about \$30 million, however there are indications that the costs could be higher. This evaluation does not address that long-term plan in depth and if B-SB seeks further funding beyond this year's proposal, it will need to do so through a separate application(s).



<p align="center">Summary of RPPC Criteria Evaluation for Butte Waterline Applicant: Butte-Silver Bow City County Government (B-SB) – Year Seven</p>	
CRITERIA	<p>Butte-Silver Bow City/County (B-SB) proposes to replace 17,000 feet of inadequate water distribution lines in the city of Butte at a cost of \$2,685,559, with \$2,417,003 requested in Restoration Funds and \$268,556 in matching funds.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends this project be funded for the requested \$2,417,003.</p> <p><u>Overall Application Quality:</u> Good</p>
1. Technical Feasibility	<u>Reasonably Feasible:</u> The project will replace 17,000 feet of leaking waterlines using standard engineering and construction practices. B-SB has successfully conducted similar work over the last decade in Butte.
2. Costs:Benefits	<u>Commensurate Benefits:</u> This proposal will benefit and compensate a large public for some of the lost use of groundwater that Butte has suffered due to the inability to use bedrock groundwater in much of the City. Benefits include improved fire protection; reduced pumping, treatment, repair, and property damage costs that result from reduced leakage; a reduced potential for the distribution system becoming contaminated through leaky and failing pipes; and water conservation. Given the lower cost:benefit ratio than previous years' projects, the NRDP believes the benefits gained from this replacement proposal is commensurate with the costs.
3. Cost-Effectiveness	<u>Likely Cost-Effective:</u> While a thorough alternatives analysis was not provided, partly because B-SB's master plan update is not completed; this proposal is likely a cost-effective alternative to addressing problems with the water distribution system and meeting B-SB's specific goal of replacing deteriorated and undersized water mains. A more definitive analysis that will hopefully be accomplished through the master plan effort is needed to determine whether replacing waterlines is the most economical alternative to replacing all of the lost services as B-SB maintains. B-SB has proposed alternatives of either bidding the work or conducting the work in-house that the NRDP considers cost-effective. Subsequent to application submittal, B-SB indicated its preference and intention to bid the work.
4. Adverse Environmental Impacts	<u>No Significant Adverse Impacts:</u> B-SB has adequately recognized and planned for potentially short-term adverse impacts that are typically associated with construction activities.
5. Human Health and Safety	<u>No Significant Adverse Impacts:</u> B-SB plans to implement adequate safety measures during construction. The project can have beneficial impacts to human health and safety by improving fire protection, reducing road hazards caused by leaking water and ice, and increasing the availability of water otherwise lost to leakage.
6. Results of Response Actions	<u>Consistent:</u> The project will not interfere or duplicate the results of any known EPA Superfund actions.
7. Natural Recovery Potential	<u>No Effect on Recovery Period:</u> This replacement project will not affect the bedrock aquifer's recovery period.
8. Applicable Policies and Laws	<u>Consistent/Sufficient Information Provided:</u> The applicant identified and adequately planned for necessary permits.
9. Resources of Special Interest	<u>No Impact:</u> It is unlikely that this project will impact these resources, since work will occur on already constructed and paved streets. The DOI does not object to funding the project. The Tribes voted in support of funding the project and requested applicant consideration of the potential for encountering buried cultural features and/or artifacts during excavations. B-SB will need to consult with appropriate entities if historic or cultural sites are encountered during construction.

Summary of RPPC Criteria Evaluation for Butte Waterline Applicant: Butte-Silver Bow City County Government (B-SB) – Year Seven	
10. Project Location	<u>Within Basin and Proximate</u> : The project overlies the injured Butte Hill groundwater resource.
11. Actual Restoration of Injured Resources	<u>No Restoration</u> : The project replaces services of injured groundwater resources that cannot be restored and thus constitutes compensatory restoration.
12. Service Loss/Service Restored	<u>Same</u> : This proposal replaces lost services to thousands of property owners and other members of the public in Butte that could use the bedrock aquifer if it was not injured.
13. Public Support	<u>8 Support Comments</u> : From the B-SB Council of Commissioners, Port of Montana, B-SB Director of Fire Services, Project Green of Montana, Inc., Butte Development Corporation, B-SB Chief Executive, B-SB Water Treatment Manager, and B-SB Tax Increment Financing Industrial Districts.
14. Matching Funds	<u>10% Match</u> : B-SB will contribute \$227,484 (8%) for construction costs and \$41,072 (2%) for in-kind labor, for a total match of \$268,556.
15. Public Access	Not Applicable
16. Ecosystem Considerations	<u>Positive</u> : By conserving water and reducing power needs for pumping and treating water.
17. Coordination & Integration	<u>Coordinates/Integrates</u> : With other waterline replacement projects in the Butte area.
18. Normal Government Functions	<u>Augments Normal Government Functions</u> : This project augments normal government function because communities typically rely on a combination of grant funds and user fees to fund such projects and because of the pervasive groundwater contamination underlying Butte. This year's proposal has a lower match than in previous years, which ranged between 25 to 32%. However, given other factors considered in this criterion, particularly that only 30% of all Butte waterlines that need replacement are proposed to be funded with Restoration Funds, the NRDP believes this project acceptably augments normal government function.

Anaconda-Deer Lodge County East Sixth and East Seventh Street Water Main Replacements

Project Summary

Anaconda-Deer Lodge City County (ADLC) proposes to replace 4,960 feet of leaking, century old waterlines in East Sixth and East Seventh streets in the City of Anaconda. This proposal is a replacement project that will conserve water for the City of Anaconda by the installation of a new water main in place of a leaking water system. As proposed, the total proposal costs are \$1,314,488, with \$75,156 in matching funds and \$1,239,332 requested in Restoration Funds.

Anaconda is located adjacent or partially within the 40 square miles of groundwater contamination associated with the Anaconda Regional Water, Waste, and Soils Operable Unit. Groundwater resources are somewhat limited because the upper portion of the alluvial groundwater aquifer east of Anaconda is contaminated with metals associated with past mining activities at levels above water quality standards. The 1995 State of Montana Anaconda Groundwater Injury Assessment Report supports this claim of groundwater contamination east of Anaconda. Also, the 1998 Anaconda Regional Water, Waste, and Soils Operable Unit Record of Decision indicates about 30 square miles of contaminated bedrock groundwater to the north and south of the City.

Currently, Anaconda's water system is losing an estimated 1.3 million gallons of water per day, via leaking waterlines, which could be reduced by 130,000 gallons per day if this proposal is implemented. Repairing these leaks is an alternative that will provide the city with additional water resources instead of developing a new source of water.

This request is the sixth year of what ADLC has indicated will be a multi-year funding request to replace the waterline system, with \$5,983,674 in Restoration Funds approved for 32,600 feet of waterline replacement. ADLC estimates that over 50,000 feet of waterline still remains to be addressed in future projects, which is likely to cost over \$10 million.⁵ ADLC has not indicated what portion of those costs would be sought in Restoration Funds. The 2006 application updated the system-wide meter installation that was to occur over a two-year period beginning in 2007, but it has been rescheduled to a single-year implementation in 2009.

This request was originally a part of the 2005 Restoration grant application which involved 11,800 feet of water main replacement on Seventh, East Sixth and East Eighth streets. Because ADLC had matching fund shortage and under-estimated the cost of the 2005 project, they only completed 61% of what was originally planned.⁶ The remainder of the uncompleted portion of the 2005 project (Schedule II) is to be completed under this proposal, though ADLC has reduced the matching fund percentage and updated its cost estimate from the 2005 grant.

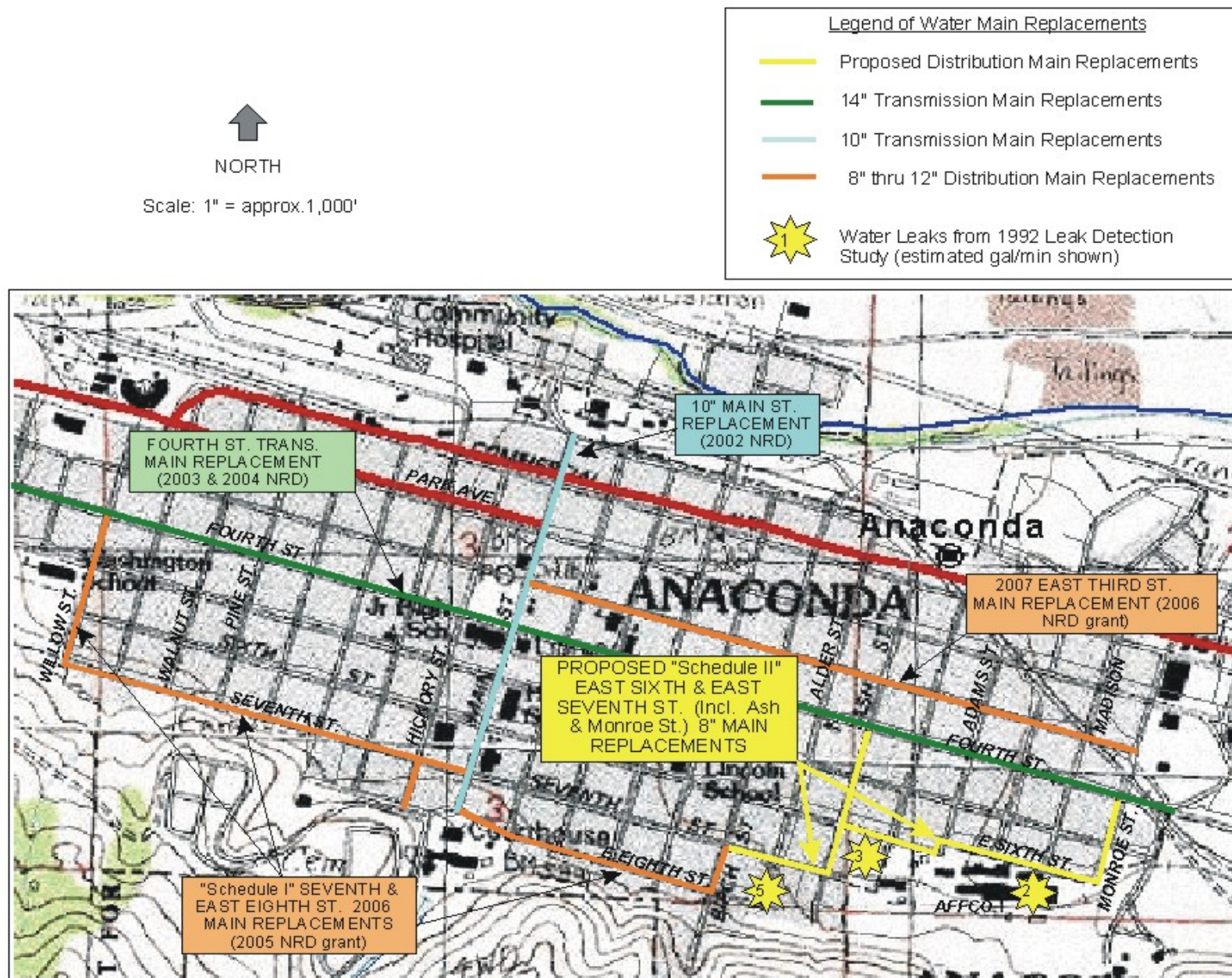
Overall Application Quality: Good. ADLC's application was fairly well written and complete however, it did not supply all the needed information to support their preferred alternative and offered some flawed analysis on matching funds.

⁵ The 2004 Preliminary Engineering Report (PER) for Anaconda's Municipal Water System (prepared for ADLC by HKM Engineering, of Butte, August 2004) indicates rehabilitation of the distribution system would cost \$12.3 million. \$10 million is an approximation of the cost of the work that has been completed since the report date.

⁶ Schedule I of the 7th, East 6th, & East 8th final expended budget was \$1,212,026 of \$1,989,200 that was originally budgeted and the remainder of the funds (\$777,174) were not spent.

FIGURE 3 - PROJECT CORRIDOR WITH PROPOSED MAIN REPLACEMENTS & RECENT SYSTEM IMPROVEMENTS

ADLC East Sixth & East Seventh St. Main Replacements



Summary of RPPC Criteria Evaluation for Anaconda Water Distribution Replacement Applicant: Anaconda Deer Lodge County (ADLC)	
CRITERIA	<p>Anaconda-Deer Lodge City County (ADLC) proposes to replace about 4,960 feet of leaking, century old waterlines in East Sixth and East Seventh streets in the City of Anaconda and save up to 130,000 gallons of water per day. As proposed, the total proposal costs are \$1,314,488, with \$75,156 in matching funds and \$1,239,332 requested in Restoration Funds.</p> <p><u>Draft Funding Recommendation:</u> The TRC recommends this project be funded for the requested \$1,239,332.</p> <p><u>Overall Application Quality:</u> Good</p>
1. Technical Feasibility	<u>Reasonably Feasible:</u> This proposal involves the replacement of approximately 4,960 feet of dilapidated waterline, using standard engineering practices, conforming to Montana Public Works Standards and DEQ requirements. ADLC proposes the same level of effort and approach used to complete past NRDP-funded water main projects since 2002. ADLC has successfully completed 67,000 feet of water main replacement projects since 1994.
2. Costs:Benefits	<u>Commensurate Benefits:</u> ADLC estimates the proposed replacement waterline will save up to 130,000 gallons of water loss per day, which is 10% of the total leaks in the system. The project offers substantial benefits to the Anaconda public by reducing water treatment, property damage and repair costs associated with leaks, reducing the need to seek additional water supplies, offering greater fire protection, and conserving water. The project constitutes compensatory restoration for extensive injuries to the aquifers surrounding Anaconda.
3. Cost-Effectiveness	<u>Likely Cost-Effective:</u> Based on current information and past similar efforts, the project is likely cost-effective for the stated goal of reducing leakage. It is unclear, however, whether replacing waterlines is the most cost-effective way to conserve water when compared to system-wide water metering. ADLC has proposed studies that should provide better information for future alternatives analysis, so a more definitive selection of alternatives can be made.
4. Adverse Environmental Impacts	<u>No Significant Adverse Impacts:</u> Replacing waterline presents no significant adverse impacts to the environment. Water conservation is an environmental benefit that will likely result.
5. Human Health and Safety	<u>No Significant Adverse Impacts:</u> ADLC has proposed mitigation measures to alleviate these adverse impacts associated with construction activities, such as dust and noise. The project can have beneficial impacts to human health and safety by improving fire protection, reducing road hazards, and increasing the availability of water otherwise lost to leakage.
6. Results of Response Actions	<u>Consistent:</u> The project will not interfere or duplicate the results of any known EPA Superfund actions.
7. Natural Recovery Potential	<u>No Effect on the Recovery Period:</u> This replacement project will not affect the groundwater recovery period.
8. Applicable Policies and Laws	<u>Consistent/Sufficient Information Provided:</u> ADLC indicates they will submit the required drawings to DEQ for review, coordinate with DEQ if contaminants are encountered, and follow Montana Public Works Specifications.

Summary of RPPC Criteria Evaluation for Anaconda Water Distribution Replacement Applicant: Anaconda Deer Lodge County (ADLC)	
9. Resources of Special Interest	<u>No Impact</u> : The project is not likely to adversely impact natural resources related to the Tribes or DOI. The DOI does not object to funding the project. The Tribes requested applicant consideration of the potential for encountering buried cultural features and/or artifacts during excavations. The Tribes did not vote in favor of project funding due to funding cap and cost-effectiveness considerations. ADLC plans to consult with the appropriate entities if cultural or historical resources are discovered during project implementation.
10. Project Location	<u>Within Basin and Proximate</u> : The project will occur in Anaconda within and adjacent to injured groundwater resource areas.
11. Actual Restoration of Injured Resources	<u>No Restoration</u> : This project constitutes replacement of lost services because it replaces drinking water lost in the area as a result of contamination where cleanup is infeasible.
12. Service Loss/Restored & Service Restoration	<u>Same</u> : This project replaces services lost; injured groundwater resources somewhat limit ADLC's potential sources for water development, thus making conservation of existing sources of an effective means of enhancing its water resources.
13. Public Support	<u>55 Support Comments</u> : From the ADLC Council of Commissioners, the Anaconda Project Facilitators, Community Hospital of Anaconda, Deer Lodge County Head Start, United Methodist Church, eight businesses, 41 residents, and Sen. Jesse Laslovich.
14. Matching Funds	<u>1.4% Match as Revised by NRDP</u> : ADLC proposed matching funds of \$75,156 of in-kind services; however, \$57,200 of that amount was for mine waste disposal costs that will not be incurred. Based on actual costs spent to complete the proposal, ADLC will provide \$17,956, or 1.4%, as an in-kind match.
15. Public Access	Not Applicable
16. Ecosystem Considerations	<u>Positive Impacts</u> : An estimated 130,000 gallons of water per day will be conserved, reducing water treatment and energy requirements for pumping and treating.
17. Coordination & Integration	<u>Coordinates/Integrates</u> : With ADLC's 2004 Preliminary Engineering Report, which proposes replacement of waterlines on a priority basis and with other funded ADLC waterline projects.
18. Normal Government Functions	<u>Substantially Augments Normal Government Functions</u> : Waterline installations and repairs are part of local government responsibilities, as they are the owners of the water distribution systems. The NRDP would normally consider this project as one that augments, not replaces, normal government function, because communities typically rely on grant funds to assist in funding such work and also because the replacement of severely leaking waterlines is an effective way to compensate the community for extensive injuries to the Anaconda area groundwater resources that were covered under <u>Montana v. ARCO</u> . However, this project substantially augments normal government function due to the low in-kind match of 1.4% and because ADLC is currently relying on Restoration Funds for all waterline replacement activities.

4.0 PROJECT RANKING and FUNDING RECOMMENDATIONS

This section provides the Trustee Restoration Council's (TRC) draft funding recommendations and specific funding conditions. The TRC's draft funding recommendations are the same as those recommended by the UCFRB Advisory Council.

This section also provides the NRDP's overall ranking of projects, which is based on the detailed criteria narratives contained in Appendix A and the project criteria comparisons contained in Appendix B. The *RPPC* does not rank criteria in terms of importance, noting that "each criterion as applied to individual projects will vary in its importance depending on the nature of the project and unique issues it raises." A project does not need to meet all of Stage 1 and Stage 2 criteria in order to be considered worth funding. A project may rank poorly compared to others for a particular criterion, but that criterion may be inapplicable or relatively unimportant for that type of project. Or, the merits of a project based on some number of criteria may significantly outweigh its deficiencies noted for a particular criterion or multiple criteria. The adequacy and quality of an application affects how well the NRDP judges that a project meets certain *RPPC* criteria and, consequently, affects the project's overall ranking as well.

Based on the NRDP's assessment of how the projects compared for the Stage 1 and 2 *RPPC* criteria, which focus on the project's anticipated benefits to the restoration or replacement of injured resources and/or lost services, the NRDP ranked the eight projects in the following order of preference:

Table 2. Project Ranking

Rank	Project
1	Greenway
2	Milltown Sediment Removal
3	Thompson Park
4	Big Hole Waterline
5	Johnson/Cottonwood Creek
6	Anaconda Water Studies
7	Butte Waterline
8	Anaconda Waterline

The following discussion also identifies the TRC's recommended project-specific funding conditions. Two funding conditions apply to all projects. First, as required by the *RPPC*, funding should be contingent on the NRDP's approval of the final design for various components of the projects. Second, the proportionate share of matching funds recognized by the NRDP in the project-specific criteria narrative will apply to project implementation, and adequate documentation of both in-kind and cash matches will be required.

1) Silver Bow Creek Greenway – High Net Benefits

The TRC recommends funding of this project for \$2,111,194 over a two year period, with \$1,367,715 recommended for 2008 and \$743,479 recommended for 2009, subject to an additional funding condition that requires NRDP approval of all land acquisitions and appraisals.

The Greenway project is considered as one of high net benefits. It will substantially benefit the injured natural resources of Silver Bow Creek by enhancing fish and wildlife habitat, mainly along miles 11-18 of Silver Bow Creek, and benefiting the ecological and recreational services associated with these restored resources. Organic matter placement, plantings in the floodplain, and aquatic enhancements will accelerate recovery of these resources. The proposed land acquisitions and easements will provide lands for wetlands, public recreational uses, and protection of the remediated and restored floodplain corridor. The proposed bridges will facilitate continued development of the Greenway trail, which will provide for public access to the corridor in an ecologically-protective manner and for enjoyment of a variety of recreational opportunities. The project provides for optimal coordination with remedy, thereby achieving significant cost savings.

The Greenway project is reasonably feasible and likely cost-effective because it is based on similar past efforts of restoring upstream sections of the Silver Bow Creek corridor and lessons learned from those efforts. Uncertainty does exist related to the success of the proposed land acquisitions, which depend on landowner negotiations. The project fits well with the multiple criteria that give preference to the work in injured areas (coordination with remedy, reduction of recovery period, and actual restoration of injured resources). The project has no matching funds and two letters of support. It is outside of normal government functions.

2) Milltown Sediment Removal – Net Benefits

The TRC recommends this project for full funding of \$2,794,330 over two years, with \$1,253,285 for 2008 and \$1,541,045 for 2009, with no additional funding conditions.

The Milltown Sediment Removal project offers substantial restoration benefits associated with the removal of the additional contaminated sediments, which include a larger, more baseline floodplain, thereby further reducing potential future flooding impacts, and reduced sources of groundwater and surface water contamination. It is estimated that removal the SAA IIIB sediments would double the width of the floodplain for about ¼ mile upstream of the confluence of the Clark Fork and Blackfoot Rivers. Other substantial benefits of the proposed removals include enhanced open space, wetlands, natural areas, trails, and recreation opportunities. The proposed costs are based on significant cost savings that could be achieved via coordination with remedy. The project offers opportune timing and coordination with the planned integrated remediation and restoration activities at the confluence of the Clark Fork and Blackfoot Rivers. The cost:benefit relationship of this project depends greatly on the costs developed through the negotiations with Envirocon and other parties involved in the larger Milltown cleanup effort. If a cost at or below the requested \$2.8 million can be agreed upon, the cost:benefit relationship for this project is considered as net benefit.

While there are no uncertainties regarding the construction aspects of the Milltown Sediment Removal project, it is of uncertain feasibility because negotiations with Envirocon and other parties regarding project price and implementation are uncompleted. Based on a thorough analysis of alternatives, the project is considered likely cost-effective if a reasonable amount at or below the proposed project cost can be agreed upon. It fits well with the multiple criteria that

give preference to the work in injured areas (coordination with remedy, reduction of recovery period, and actual restoration of injured resources). The project has no matching funds and five letters of support. It is outside of normal government functions.

Ranking Rationale: (For Greenway and Milltown Sediment Removal Project)

The NRDP ranks the Greenway project highest of all the eight projects because it will contribute the greatest benefit to restoration of injured resources and associated lost services and achieve significant cost savings through its optimal coordination with remedy. It is the only project judged to derive high net benefits. While the project has less documented public support than the other projects and no matching funds, the NRDP considers the greater magnitude of benefits to injured resources and lost services to be of such significance to offset its low ranking for these criteria.

The Greenway and Milltown Sediment Removal projects both do well for the multiple criteria that give preference to work in injured areas and both offer optimal coordination with remedy. The NRDP ranked the Greenway above the Milltown Sediment Removal project primarily for two reasons. First, the Greenway project, which covers an 8-mile floodplain corridor, offers more substantial restoration and recreation benefits than the Milltown Sediment Removal project, which covers a 1/2-mile floodplain corridor. Thus, the difference in the judgment of the Greenway project as deriving high net benefits compared to the Milltown Sediment Removal project as deriving net benefits. Second, the feasibility of the Milltown Sediment Removal project is of greater uncertainty due to pending negotiations than the Greenway project. Both the Milltown Sediment Removal and Greenway projects do well for criteria that give preference to restoration of injured areas and have similar public support and no matching funds. The projects are similar for most of the other *RPPC* criteria, although the Milltown Sediment Removal project is based on a more thorough analysis of alternatives than the Greenway project.

The Milltown Sediment Removal project ranks above all the other projects, except for the Greenway project, because it offers greater restoration benefits to injured resources than those other projects, which are all replacement projects. The high ranking of both Greenway and Milltown Sediment Removal projects is reflective of the program priority, as reflected in multiple *RPPC* criteria, for projects that integrate remediation and restoration of injured resources.

3) Thompson Park – Net Benefits

The TRC recommends funding of this project for \$988,402, subject to funding conditions requiring: 1) NRDP approval of all land acquisitions and appraisals and approval of any changes in proposed improvements that result from the NEPA process; and 2) that certain actions that could be funded with the USFS revenues from the timber sales will be delayed pending resolution of the timber sale issue, in order to leverage this funding. However, should the delays jeopardize the overall project implementation schedule of completion by 2009, the NRDP may fund the project without timber sale revenues, or may require timber sale revenue be used for certain future project-related actions eligible from timber sale revenues.

The Thompson Park project offers substantial recreational benefits to a large public, particularly with its given its proximity to Butte, with increased opportunities for picnicking, biking, hiking, open-space enjoyment, wildlife viewing, and fishing. With the proposed recreational sites, rails-to-trails feature, and the associated extensive hiking and biking trails network that would be accessible to people of all ages and abilities, Thompson Park has the potential to attract recreational users both locally and regionally. The applicants estimate that, with the proposed improvements, use of Thompson Park would be approximately 15,000 recreation visitor days per season. The proposed improvements will also significantly reduce sediment inputs to Blacktail Creek and thereby improve the aquatic and riparian resources of Blacktail Creek, which is a headwaters tributary to Silver Bow Creek. Overall, the project costs are reasonable and the planned expenditures will result in net benefits to natural resources and the public's use and enjoyment of natural resources. The recommended funding condition tied to the timber sale would maximize the leveraging of potential timber sale revenues, which could decrease Restoration Fund costs.

The Thompson Park project is reasonably feasible, given there are no significant uncertainties to constructing the proposed improvements, and given the recently-adopted and planned long-term management and enforcement actions. It is considered likely cost-effective based on the chosen combination of recreational access improvements that maximize longevity, reuse of existing access features, public accessibility and use, and natural resource benefits. While it is a replacement project, it can contribute to the restoration of injured resources as it will improve the aquatic resources of Blacktail Creek, which has the potential to provide spawning and refuge areas for trout migrating to and from Silver Bow Creek. It has the highest percentage matching funds of all the projects of \$496,676 or 33% and 13 letters of support. It augments normal government functions. While the Park is owned and jointly managed by B-SB and the USFS, neither entity is required by law to conduct the proposed improvements nor are they routinely funded for the improvements, which go beyond routine operation and maintenance activities, and are typically funded with assistance of grant funds. B-SB and the USFS have committed to conducting routine operation and maintenance activities in the long-term.

4) Big Hole Waterline – Net Benefits

The TRC recommends this project be funded for the requested \$1,644,722, with no additional funding conditions.

The Big Hole Waterline offers substantial benefits to Butte and Rucker residents. The Big Hole supplies 60-80% of Butte's water supply and is also the primary water source for the community of Rucker. The pipeline is unquestionably in critical need of repair and the project would fix 10% of the total line in three sections that have some of the worst leaks. Benefits include improved delivery of a reliable drinking water source; reduced demand on water resources; reduced water pumping, treating, and transportation costs; reduced repair costs; and improved flows and fire protection. B-SB does not have the data needed to estimate the reduced costs associated with this project. The number and severity of the leaks in the Big Hole transmission line affect all the water users and thus have a greater impact than the leaks associated with the water main lines distribution lines in the City of Butte that serve a portion of the water users. The project is reasonably feasible given the planned use of experienced B-SB crews and is likely

cost-effective, given data indicating cost savings to be achieved with use of in-house crews compared to use of contractors. It has matching funds of \$548,241 or 25% and 8 support letters. Due to this significant match, the NRDP believes this project acceptably augments normal government functions.

5) Johnson/Cottonwood Creek – Net Benefits

The TRC recommends this project for full funding for \$608,015, subject to funding conditions requiring NRDP approval of easements and any reappraisals and that public outreach activities be performed by Powell County or their designated project manager.

The expected recreational benefits of the Johnson/Cottonwood Creek project include increased public access and natural resource-based recreational opportunities, such as hiking, fishing, open-space enjoyment, and bird-watching to a large public, given the project's location in the middle of Deer Lodge and its proposed link to the Deer Lodge Community Trail. The educational benefits of the project include providing students and adults an understanding of natural resources and the remediation and restoration efforts taking place in the UCFRB, via hands-on curriculum for the outdoor education center and interpretive signs throughout the Center and along the Johnson/Cottonwood Creek Trail. Educating individuals about the restoration of injured resources can increase the likelihood that the UCFRB's future residents will be engaged in restoration and be responsible stewards for the watershed. These educational benefits are enhanced by the proposed location of the education center next to Powell County High School and the planned involvement of educators in developing lesson plans and designing the education center. The project will substantially benefit the public's use and enjoyment of natural resources at a reasonable cost, particularly given the low acquisition costs.

The Johnson/Cottonwood Creek project is considered reasonably feasible and likely cost-effective. Uncertainties exist associated with its conceptual design phase, but Powell County provides for the appropriate input and approvals of the final design. Uncertainties regarding outreach and acquisition tasks are addressed via the recommended funding conditions. The project integrates with the Clark Fork Watershed Education Program, which will assist with lesson plans and the design of the outdoor education center. It is outside of normal government functions. The project has matching funds of \$33,550, or 8%, and 9 letters of support.

Ranking Rationale: (For Thompson Park, Big Hole Waterline, and Johnson/Cottonwood Creek projects)

The Thompson Park, Big Hole Waterline, and Johnson/Cottonwood Creek projects were all judged to derive net benefits to a large public, to be reasonably feasible, and likely cost-effective. The Thompson Park project is ranked above the other two projects primarily because it offers more substantial natural resource benefits than the other projects and does better for the multiple criteria that give preference to restoration of injured resources since the project can benefit the Silver Bow Creek fishery. It also has greater matching funds of 33%, compared to the 25% match for the Big Hole Waterline project and the 8% match for the Johnson/Cottonwood Creek project. The Big Hole Waterline project is primarily ranked above the Johnson/Cottonwood Creek project because it has greater matching funds, and a greater connection to injured

resources since it constitutes compensatory restoration for some of the lost use of water resources of Butte's bedrock aquifer. While all three projects are reasonably feasible, the Johnson/Cottonwood Creek project is also less developed and is at more of a conceptual design phase than the Thompson Park and Big Hole Waterline projects.

The primary factor for ranking these three projects above the next three lower-ranked projects is the better cost:benefit relationship of these three projects, which were judged of net benefits, compared to the commensurate benefits judged for the Anaconda Water Studies, Anaconda Waterline, and Butte Waterline projects. While the Anaconda Waterline and Butte Waterline projects offer compensatory restoration similar to the Big Hole Waterline project, the Big Hole Waterline project has greater matching funds and services a larger number of water users than the other two waterline projects.

6) Anaconda Water Studies – Commensurate Benefits

The TRC recommends this project be funded for the requested \$107,771, with no additional funding conditions.

The Anaconda Water Metering Study and associated public outreach activities will result in a report on metering alternatives and recommendations. The benefits of this study depend on whether system-wide metering is implemented, which is uncertain. The water distribution study will result in a hydraulic computer model that can be used to help identify water leakage problems and to better predict, prioritize, and plan future water conservation activities. This model could yield substantial benefits in a short amount of time by better planning and use of limited funds for water conservation projects and is thus considered of net benefit. The overall benefit of the entire project is negatively affected by the uncertainty of the implementation of system-wide metering; however, the NRDP judges the overall benefit of the project as commensurate with the cost of the proposal. If implementation of system-wide metering would occur, the entire project may have high net benefits or at least net benefits. The project is reasonably feasible and likely cost-effective. It has matching funds of \$6,274 or 5.5% and 35 support letters. Due to the low match of 5.5% and other factors, it is considered as a project that substantially augments normal government functions.

7) Butte Waterline – Commensurate Benefits

The TRC recommends this project be funded for the requested \$2,417,003, with no additional funding conditions.

Restoration of Butte's bedrock aquifer that is contaminated throughout a six-mile area of the city is infeasible. By fixing the proposed 17,000 feet of leaking and corroded water lines, the Butte Waterline project will enhance the water supply from an uncontaminated source. It will reduce pumping, treatment, repair and property damage costs associated with leaks; improve fire protection; conserve water; and reduce the potential for the distribution system becoming contaminated through leaky and failing pipes. The project will benefit and compensate a large public for some of the lost use of groundwater that Butte has suffered due to the inability to use the bedrock aquifer in much of the City.

The Butte Waterline project is reasonably feasible due to the successful water main replacement that has been ongoing in Butte since 1992. It is likely cost-effective to meet B-SB's stated goal of addressing problems with the water distribution system, although a more definitive analysis is needed to determine whether replacing waterlines is the most economical way to replace lost services. In its application, B-SB proposed alternatives of either bidding the work or conducting the work in-house that the NRDP considers cost-effective. Subsequently, B-SB indicated its preference and intention to bid the work.⁷ The project has matching funds of \$268,556 or 10% and 7 support letters. It is considered to acceptably augment normal government function, since B-SB seeks Restoration Grant Funds to replace only a portion (30%) of the total waterlines needing replacement.

B-SB provides an analysis indicating that project savings for the Butte waterline project could exceed annual cost by over 3½ to one. Though many assumptions were made in this calculation and they cannot precisely quantify the benefit, the fact that B-SB repaired about 282 leaks in their water system in the past year, which is far more than other city water system of similar size, is a good indication that their waterline system needs to be addressed. Given the lower cost:benefit ratio than previous years' projects, principally due to lower match (10% this year compared to 25-30% in past years) and higher construction costs, the NRDP believes the benefits gained from this replacement proposal are commensurate with the costs. If the project construction costs are significantly lower than estimated, the project could be judged as having net benefits.

8) Anaconda Waterline – Commensurate Benefits

The TRC recommends this project be funded for the requested \$1,239,332, with no additional funding conditions.

Restoration of the upper portion of the shallow aquifer throughout a 40 square mile area east of Anaconda and much of the bedrock aquifer throughout a 30 square mile area north and south of Anaconda is not feasible due to contamination. By fixing the proposed 4,960 feet of leaking and corroded water lines, this proposal will enhance the water supply from an uncontaminated source. Fixing the leaks will reduce water pumping, treatment, property damage and repair costs associated with leaks; reduce the need to seek additional water supplies; offer greater fire protection; and offer the opportunity to conserve more water during drought conditions. The project constitutes compensatory restoration for extensive injuries to the aquifers surrounding Anaconda.

The Anaconda Waterline project is reasonably feasible, since ADLC has successfully performed similar work in the past. It is considered likely cost-effective for the stated goal of reducing leakage; however, it is unclear whether replacing waterline is the most cost-effective way to conserve water when compared to system-wide water metering. The project received 55 support comments from 13 entities and 42 area residents, which is the greatest public support of all the projects. It has matching funds of \$17,956, or 1.4%, and substantially augments normal government function given its low cost share.

⁷ Based on statements made by Jon Sesso of B-SB at the Aug. 14, 2007 Advisory Council meeting and Paul Babb of B-SB at the August 16, 2007 TRC meeting.

ADLC estimates the Anaconda Waterline project will save up to 130,000 gallons of water loss per day, which is 10% of the total leaks in the system. Using ADLC's estimated production/delivery cost of \$1.07 per thousand gallons, a water savings of 130,000 gallons/day would result in about \$50,772 in annual benefits, which is comparable to the equivalent annual cost of \$50,400. This project involves completing the Schedule II portion of the funded 2005 Anaconda Waterline proposal, which was not completed due to lack of matching funds. Several factors have lead to a reduced cost:benefit relationship compared to the 2005 proposal, which was judged to be of net benefit. They include higher construction costs, the additional costs incurred because the 2005 project was split into phases, and a decrease in matching funds from 12.4% in 2005 to 1.4% for this year's proposal. Thus, the NRDP believes the benefits gained from this proposal are commensurate with its costs. If this proposal had more substantial matching funds and costs nearer to those originally proposed in 2005, the NRDP would have considered it as one of net benefit.

Ranking Rationale: (For Anaconda Water Studies, Butte Waterline and Anaconda Waterline projects)

The NRDP ranked the Anaconda Studies above the Anaconda and Butte Waterline projects because the studies are critically needed to cost-effectively manage ADLC's future water conservation activities and thereby prioritize future water system improvement requests to the NRDP and other grant programs. In its cost-effectiveness analysis for the two waterline projects, NRDP noted the uncertainties associated with whether the waterlines represent the most cost-effective alternative for the communities to conserve water given general information indicating the significant water saving benefits associated with system-wide metering. There is no such uncertainty with the Anaconda Water Studies, which, combined with the already-funded Butte Master Plan, can lead to more cost-effective groundwater replacement proposals than the waterline replacement proposals currently being advanced by ADLC and B-SB. While the Anaconda Water Studies and two waterline projects were all deemed to offer commensurate benefits, the Studies project has the potential to derive at least net benefits should it lead to implementation of system-wide metering in Anaconda.

The NRDP ranked the Anaconda Waterline below the Butte Waterline project because of its reduced match (1.4% compared to Butte's 10%), because its cost per lineal foot (lf) of water main of \$253/lf is 60% higher compared to Butte's cost of \$158/lf, and because the Anaconda Waterline project augments normal government function to a greater extent than the Butte Waterline project. This greater augmentation is partly due to Anaconda's intended replacement of 100% of the leaking waterlines with Restoration Funds over 10 to 12 years vs. Butte's intended replacement of 30% of the leaking waterlines with Restoration Funds over a 15-year period.

Funding Cap Considerations and Funding Recommendations Summary

In November 2006, the Trustee Restoration Council set the funding cap of the 2007 Restoration Grant Cycle at \$8.5 million, which was the amount recommended both by the NRDP and Advisory Council.

In its pre-draft funding recommendations, the NRDP did not recommend the lowest ranked project, the Anaconda Waterline, for funding due to funding cap limitations. The Advisory Council voted to recommend that the funding cap be increased from \$8.5 million to \$9.7 million in order to fund all eight projects. The TRC also voted to increase the cap. Thus, all eight projects are recommended for funding at the requested amounts.

Table 3 provides a summary of the TRC's funding recommendations and funding conditions. The total funding recommendation is \$9,626,245 for 2008. Commitment to the 2nd year of the Greenway and Milltown projects will reduce the next year's funding cap by \$2,284,524.

Table 3. Summary of TRC Draft Funding Recommendations and Funding Conditions

Project	Requested Restoration Funds		Recommended Restoration Funds		Funding Condition
	Year 1	Year 2	Year 1	Year 2	General Funding Conditions for all projects: 1) NRDP's approval of the final design; and 2) Approved matching funds will apply to project implementation and require adequate documentation.
1. Greenway	\$1,367,715	\$743,479	\$1,367,715	\$743,479	NRDP approval of all land acquisitions and appraisals.
2. Milltown Sediment Removal	\$1,253,285	\$1,541,045	\$1,253,285	\$1,541,045	No additional funding conditions.
3. Thompson Park	\$988,402		\$988,402		1) NRDP approval of all land acquisitions and appraisals and approval of any changes in proposed improvements that result from the NEPA process; and 2) Certain actions that could be funded with the USFS revenues from the timber sales will be delayed pending resolution of the timber sale issue, in order to leverage this funding. However, should the delays jeopardize the overall project implementation schedule of completion by 2009, the NRDP may fund the project without timber sale revenues, or may require timber sale revenue be used for certain future project-related actions eligible from timber sale revenues.
4. Big Hole Waterline	\$1,644,722		\$1,644,722		No additional funding conditions.
5. Johnson/Cottonwood Creek	\$608,015		\$608,015		1) NRDP approval of easements and any reappraisals; and 2) Public outreach activities be performed by Powell County or their designated project manager.
6. Anaconda Water Studies	\$107,771		\$107,771		No additional funding conditions.
7. Butte Waterline	\$2,417,003		\$2,417,003		No additional funding conditions.
8. Anaconda Waterline	\$1,239,332		\$1,239,332		No additional funding conditions.
Total Recommended Funding	\$9,626,245	\$2,284,524	\$8,386,913	\$2,284,524	

APPENDIX A

PROJECT CRITERIA
NARRATIVES

Greenway Service District – Silver Bow Creek Greenway – 2007

Project Summary

The Greenway Service District (GSD) is requesting \$2,111,194 over two years (\$1,367,715 in 2008 and \$743,479 in 2009) mainly to restore aquatic and riparian resources along miles 11-18 of Silver Bow Creek. All of the proposed activities will be coordinated with remedial actions. The major actions planned are ecological improvements such as enhancement plantings, organic matter placement, and stream habitat improvements to restore remediated lands. The proposal also involves pursuing a land acquisition in the Silver Bow Creek floodplain, placement of up to four 75-foot pre-fabricated bridges along future trail stream crossings in Subarea 4, and land planning activities.

Subarea 3 Description and Major Restoration Components – see Figure 1 on page 8

Subarea 3 is five miles long (miles 11-15) and extends from Miles Crossing, which is about one mile east of Durant Canyon, through Durant Canyon to the Fairmont Bridge. Along Subarea 3, this proposal provides for additional organic matter and plantings of trees, shrubs and forbs on the 120 acres of remediated lands via coordination with DEQ remedial actions. Restoration costs over the two years are about \$0.5 million for Subarea 3. Remedial actions should begin in Durant Canyon in 2008 and be completed in 2009.

Subarea 4 Description and Major Restoration Components – see Figure 1 on page 8

Subarea 4 is seven miles long (miles 16-22) and extends from the Fairmont Bridge to Warm Springs Ponds. During 2008 and 2009, DEQ plans to remove tailings on 215 acres along miles 16 and 17. This grant provides for additional plants, organic matter, seeding, and stream habitat work along these excavated areas to achieve restoration goals via coordination with remedial actions. Restoration costs over the two years are about \$1.6 million for Subarea 4. The GSD also proposes to acquire 131 acres of the Golden Technologies land, located in mile 17, to complete land acquisition activities along the entire Silver Bow Creek corridor, and to install up to four bridges in Subarea 4 that will serve as stream crossings along the proposed Greenway Trail.

Past and Future Silver Bow Creek Greenway Grants

In the last six years, the GSD was awarded approximately \$10 million in Restoration Funds for development of Greenway trail and restoration of aquatic and riparian resources and services along the first 10 miles (Reaches A-J) and miles 17-19 of the 22-mile Silver Bow Creek. To date, about half the monies have been spent, mostly on aquatic and floodplain habitat improvements and on the Ramsay Flats tailings removal. The breakdown of costs for the past grants is 68% (\$6.8M) for ecological components; 22% (\$2.2M) for access components; and 7% (0.7M) for land acquisitions. The 2007 proposal budget has a similar proportionate breakdown for these major fund components.

This aquatic and floodplain habitat work has occurred with extensive remedial coordination between the GSD, NRDP and DEQ. For example, DEQ contracts for organic matter placement

before contracting for seeding¹ and NRDP, with GSD concurrence, pays DEQ for the work from past Restoration Fund allocations. In 2007, GSD plans to pave the first three miles of the trail and construct the Rocker and Whiskey Gulch trail heads in Subarea one (Reaches A-E, miles 1-5) once access arrangements are finalized with the new owner of RARUS railroad.

Completion of DEQ remediation is expected in 2010 or 2011. The majority of restoration efforts will also be completed by then. A grant request of \$2-3 million is expected in 2009 to complete ecological enhancements along the last three miles (20-22). A subsequent grant request is expected to complete the trail and access components.

Overall Application Quality: Fair. The majority of the application is well written and relatively clear in its intent. However, the application was general in nature and did not always focus on what information was necessary to address the criteria. Details for remedial action designs are not yet available, which makes some restoration design predictions difficult. Supplemental information was needed for the land acquisition planning and access components.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

The following discussion focuses on how the proposed ecological enhancements, land acquisition activities, and access improvements will accomplish the GSD's stated goals: 1) restoring aquatic, riparian/wetland, and uplands ecosystems within the Silver Bow Creek corridor; 2) implementing remediation and restoration activities within the Silver Bow Creek corridor as one project; and 3) acquiring and providing public access to a passive recreation corridor within the Silver Bow Creek corridor.

A) Ecological Enhancements – \$1,391,000

The GSD proposes the following activities to restore aquatic, riparian/wetland, and upland ecosystems:

- *Enhanced revegetation beyond what is planned under remedy in Subareas 3 and 4:* Although the application lacks a detailed revegetation plan, preparation of a detailed plan is not possible at this time because hydrologic planting zones are not yet known and planting zones will not be mapped until remedy removes the tailings in each reach. The estimated cost per acre is based on the type and quantity of plants that were needed in past years and on anticipated hydrologic zones, which is a sound approach. Based on lessons learned from early planting efforts, planting for each reach will be done over a two or three year period, instead of a one-year period, to address a concern of plant mortality in drought years. Also, most plantings will occur in the spring when climatic conditions are more favorable for vegetation success than in the fall when frost conditions are prevalent and have been shown to lessen plant survival.

¹ DEQ's seeding contract includes both remedy and restoration seed purchased by DEQ/NRDP's revegetation contractor, which is another example of remedy/restoration coordination.

- *Organic matter incorporation over approximately 335 acres of floodplain in Subareas 3 and 4:* Based on the recommendation of the DEQ/NRDP revegetation contractor, a goal of 2% organic matter would be applied to the upper 4 inches of borrow soils, which do not contain any organic matter.
- *Enhanced seeding of 120 acres in Subarea 3 and 215 acres in Subarea 4:* Enhanced seeding provides for additional forbs and woody plants that are essentially lacking or poorly represented in remedial seed mixes.
- *Enhanced revegetation in Subarea 1:* Restoration Funds would be used to incorporate organic matter, provide enhanced seed mix, and replant trees and shrubs in non-productive areas that DEQ is expected to repair along Subarea 1.
- *Enhanced remedial streambanks, stream habitat and wetlands along Subareas 3 and 4:* The proposed enhancements are based on past input from Fish, Wildlife and Parks (FWP) personnel and NRDP restoration consultants. Detailed designs for these improvements were not provided because the GSD will rely on coordination with DEQ's and NRDP's contractors for specific designs.
- *Vegetative and geomorphic monitoring and weed control in restored areas:* These activities will be coordinated with DEQ's remedial monitoring and weed control activities and are appropriately planned based on the Silver Bow Creek comprehensive remediation and restoration monitoring plan.

All of these proposed ecological enhancements have been successfully planned and implemented in conjunction with remedial activities along Subareas 1, 2, and 4 and there have been no uncertainties associated with these activities. The GSD's approach to rely on the expertise of the State's design contractors for designing these ecological enhancements allows for optimum coordination between remediation and restoration.

B) Land Acquisition Activities – \$254,000

The GSD proposes the following land acquisition and planning activities to provide public access to a passive recreation corridor within the Silver Bow Creek corridor:

- *Purchase of 131 acres of the Golden Technologies properties in Subarea 4:* The Golden Technology parcel is the only major property in Subarea 4 that is not in public ownership. The total property covers 264 acres and is separated into two parts by a mile of Silver Bow Creek. The Golden Technologies area west of Silver Bow Creek encompasses 133 acres and is an active mineral placer mining operation. The Golden Technologies area to the east of Silver Bow Creek encompasses 131 acres and is entirely covered with tailings and is not part of the mining operations. The GSD seeks to create public recreational access, construct wetlands, and enhance aquatic habitat via this acquisition. The property will be owned, operated and managed by the GSD. The GSD has purchased land in Subarea 1 and is currently conducting the necessary planning for this acquisition (e.g. title and appraisal work and landowner negotiations) with 2005 grant funds. Further acquisition efforts are

considered feasible; however, a possibility exists that this acquisition may not occur if the landowner, GSD, and State can not agree on acquisition terms or price.

- *Completion of all other land acquisition planning and purchases necessary or appropriate to complete the Greenway:* The GSD, in cooperation with the NRDP, developed an overall strategy regarding the specific requirements to complete the needed land and/or access easement acquisitions for the entire corridor. They include landowner contacts and negotiations,² appraisals, legal research/reviews, title research/insurance, and surveying. This detailed, complex process requires the coordination of many entities that have an interest in protecting the Silver Bow Creek Corridor as remedial and restoration actions take place. The NRDP believes that the GSD has the technical expertise and experience to plan and complete all land acquisitions needs in the corridor and a logical entity to perform this task. Uncertainty exists as to the extent that these efforts will be successful since they depend on reaching acceptable agreements with various landowners.

C) Access Improvements – \$465,000

The GSD proposes to design, construct, and install up to four pre-fabricated bridges along Subarea 4. These bridges are necessary to allow the Greenway trail to cross Silver Bow Creek. Several creek crossings will be needed to avoid conflicts with railroads, landowners, and to access the Highway One Rest Area that will serve as a Greenway trailhead. Installing these bridges requires access for large trucks and a crane to place the pre-fabricated bridges. The specific bridge locations are unknown, but will be determined by stream design work and acquisition/easement options. The GSD appropriately plans to install the bridges during the actual stream/floodplain construction activities to avoid damaging remediated and restored areas with the mobilization of large equipment. Three of the proposed bridges would be on lands to be transferred from ARCO to DEQ where a future trail component is likely feasible. If the Golden Technologies acquisition is not completed, the GSD will pursue an alternative trail location that does not require a bridge.

Overall Technical Feasibility

The NRDP has a reasonable degree of confidence that the technologies proposed for all aspects of the project can be applied to Silver Bow Creek. The tasks required to complete the project goals and objectives generally employ standard technologies that have mostly proven successful in past efforts along of Silver Bow Creek to date and have been adjusted for lessons learned. A significant uncertainty exists, however, as to whether the acquisition/easements efforts will be successful, since they depend on landowner negotiations that have yet to occur.

A key component of this project is coordination with the remedial process. It should be recognized that this coordination requires strict accounting of restoration vs. remedial

² The GSD indicated that to complete all needed land transactions, negotiations are needed for easements on DEQ lands, for a partial or full donation of the privately owned Nissler wetlands, and for easements, right-of-way, and crossing permits on land owned by Rarus and Burlington Northern railroads (per 6/6/07 conversation between Greg Mullen of NRDP and Dori Skrukud of the GSD).

cost to comply with terms of the 1998 Silver Bow Creek Consent Decree. Given the cost efficiencies and the clear benefits to remedial efforts that can be achieved with this coordination, DEQ remedial staff has indicated their strong support to continue participating in this cooperative effort.

2. Relationship of Expected Costs to Expected Benefits – High Net Benefits

The total proposed for this grant is \$2,111,194 over a two-year period. About 22% of the costs are proposed for Subarea 3 and 78% are for Subarea 4. The approximate breakdown of costs³ for the \$2.1 million is as follows:

- Transplants of Shrubs and forbs – \$240,000 (11%)
- Organic matter placement – \$578,000 (27%)
- Enhanced seeding – \$154,000 (7%)
- Stream habitat – \$269,000 (13%)
- Monitoring, weed control, Subarea 1 work – \$150,000 (7%)
- Land acquisition of Golden Technologies – \$144,000 (7%)
- Land planning/completion along all of SBC – \$110,000 (5%)
- Access bridges in Subarea 4 – \$465,000 (22%)

The benefits gained from this project are substantial and significantly outweigh the associated costs. The project will substantially benefit injured natural resources by enhancing fish and wildlife habitat. Organic matter placement, plantings of floodplain vegetation, and aquatic habitat enhancements will accelerate recovery of these resources. Organic matter placement will benefit both remedial and restoration planting efforts by augmenting borrow soil and remaining soils in functioning as adequate plant medium. The restoration planting effort is critical given limited remedial planting planned in the floodplain.

Purchasing or creating easements for public access on the Golden Technologies land will provide the potential for construction of wetlands, facilitate recreational services associated with the wetlands such as waterfowl viewing, and protect the remedial investment in this property. The created wetlands will protect and improve water quality, provide fish and wildlife habitat, store floodwaters, and augment surface water during dry periods. Also, the requested monies for completing land acquisition activities along the entirety of the Silver Bow Creek corridor is expected to have high net benefits because placing the Silver Bow Creek corridor in public ownership will go a long way in protecting the remedy and restoration investments.

Benefits will be substantial for the public desiring access to the Silver Bow Creek floodplain. The proposed access bridges will facilitate continued development of the Greenway trail. Installing these bridges prior to the final remedial/restoration activities (i.e. compost, plantings, etc) along the stream channel, and floodplain will protect these investments from

³ In Criterion #2, all costs listed include the 5% contingency, 5% or 15% design and 5% project administration. There are no design costs added for land purchases and land planning or monitoring and weed control.

damage that would occur if the bridges are installed after the planting is complete. The public benefits of having a restored corridor include hiking, walking, fishing, picnicking, and other general outdoor activities. Controlling public use in the corridor, which the GSD plans to do as outlined in previous grants, will help protect restoration and remediation efforts. The project will benefit not only the citizens of Butte and Anaconda, but also citizens of Montana as a whole.

3. Cost-Effectiveness – Likely Cost-effective

This criterion considers whether this project accomplishes its goals in the least costly way possible, or whether there is a better alternative. The GSD considered two alternatives to the selected proposal, the no-action alternative and an alternative of delaying the project until Silver Bow Creek remedial efforts are completed in 10 years. The GSD adequately addressed why both of those alternatives are inferior to the selected alternative. The no-action alternative would result in significantly less vegetation for recreational and wildlife use, decreased aquatic habitat potential, an increased recovery time to a baseline condition, and inadequate protection of restored and remediated areas. All of the proposed activities are timed to allow for optimum coordination between remediation and restoration efforts. Delaying the project until remedy is completed would be inefficient, delaying restoration of injured resources and resulting in a loss of coordination cost savings. The NRDP provides the following additional analysis of alternatives to the components of the proposal:

A) Ecological Enhancements

For the ecological enhancement efforts, the only other realistic alternative would be to vary the level of such efforts, such as changing the quantity or type of plantings or changing the percentage of organic matter to be applied. The proposed approaches for plantings, organic matter, and streambank and wetland improvements are based on similar past efforts, with adjustments for reach-specific conditions and lessons learned from past efforts. The NRDP considers the costs for all the ecological enhancements to be reasonable, because they are based on recent similar work that has been competitively bid and derived from information provided by the NRDP. The NRDP considers the proposed enhancements to be cost-effective, given the reasonableness of the costs, combined with the sound approaches that are based on similar past efforts and coordination with the remedial ecological contractor.

B) Land Acquisition Activities

The GSD appropriately plans to pursue either conservation easements on or public acquisition of the Golden Technologies property. The budget for the Golden Technologies property (\$144,000) is appropriately based on similar past acquisition efforts along the Silver Bow Creek Greenway corridor. Pursuit of conservation easement/acquisitions of this parcel is warranted because, under private ownership, the restoration potential of the property cannot be reached and associated recreational opportunities would be diminished. For example, a possibility exists that the landowner would continue placer dredging on the Golden Technologies property after remediation, which would be detrimental to any restoration goals. This acquisition effort needs to be

initiated in 2008 to allow for optimal coordination with remedy. For these reasons, the NRDP considers the Golden Technologies land acquisition likely to be cost-effective.

The GSD request for additional funding to continue acquiring land in the SSTOU is considered cost-effective and the best alternative, given the GSD's past work in acquiring lands along the corridor. No other alternatives exist to the proposed approach that would accomplish the intended goal of completing ownership and management of the Silver Bow Creek floodplain. The GSD estimates that approximately 40% of this requested funding will be used for legal review/research, 40% for consultant assistance, 10% for BSB's input, and 10% for land surveys, appraisals, and easement compensation.

C) Access Improvements

An alternative for placement of four bridges in Subarea 4 is difficult to ascertain at this time, since the specific bridge locations depend on the stream designs that will be determined this fall, based on the success of acquisition/easement efforts. Based on supplemental information provided by the GSD's engineer, NRDP agrees that at least two and up to four bridges might be needed for the most feasible and appropriate trail route in Subarea 4.⁴ NRDP considers the GSD's predicted costs for the bridges reasonable.

Multi-Year vs. One-Year Submittals

The GSD seeks a two-year funding commitment in order to optimally coordinate restoration activities with remediation activities. Due to the grant cycle's annual evaluation and funding decision schedule, the GSD must apply in 2007 for actions that would coordinate with DEQ's planning for remedial actions in 2008 and 2009. The Trustee's Multi-Year Funding Policy⁵ provides the option for the GSD to submit this proposal as a multi-year request. The NRDP agrees with the GSD's justification for this multi-year request because, if only one year of funding is considered, then some of the restoration activities planned to be coordinated with remediation would be delayed and cost savings from that coordination would be reduced. The NRDP thus agrees that a multi-year funding request is the appropriate choice in this situation.

In conclusion, while the GSD does not offer a thorough alternatives analysis in the application, the NRDP considers the project as likely cost-effective.

4. Environmental Impacts – Short-Term Adverse Impacts with Mitigation

The project does not pose any significant adverse impacts to the environment. The GSD provided a thorough evaluation of all environmental impacts and acknowledges the permits that may be necessary for activities in the floodplain. The GSD appropriately notes the potential for short-term water quality impacts during construction. The GSD plans for the mitigation of these impacts through best management practices. The planned coordination of

⁴ Based on an e-mail from Joel Gerhart to Gregory Mullen on May 22, 2007.

⁵ NRDP Funding Policy for Multi-Year Projects, approved by the Trustee Restoration Council, November 4, 2000.

wetland creation with remedial action will minimize the duration of short-term impacts to surface water quality associated with construction activities.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

The GSD notes that limited effects on the demand for government services are expected. The Butte Silver Bow and Anaconda-Deer Lodge City/County governments have created the Greenway Service District to manage the Silver Bow Creek Greenway. Both counties support the project and are willing to accept the additional demands.

A potential exists for short-term impacts to human health and safety during construction activities. The GSD appropriately plans to mitigate these potential impacts through implementation of standard safety and traffic control plans.

6. Results of Superfund Response Actions – Positive Coordination

This project will complement and enhance remedial actions on Silver Bow Creek. Coordination with remedy is imperative to the success of the project. This will be maximized through the GSD's planned use of the DEQ remediation design and construction contractors on organic matter placement, revegetation, and aquatic enhancement activities. The positive coordination of the Greenway with remedial actions is also reflected in the 1995 *Streamside Tailings Operable Unit Record of Decision* regarding incorporation of components consistent with recreational corridor land use along Silver Bow Creek.

7. Recovery Period and Potential for Natural Recovery – Reduces Recovery Period

Organic matter placement will accelerate recovery of vegetation in the floodplain along Subarea 3 and 4. Plantings of floodplain trees, shrubs and forbs, and additional seeds will improve the quantity and diversity of wildlife habitat. Access management via placement of the bridges and land acquisition will accelerate recovery of all the injured resources by properly controlling public use, thereby protecting the remediated and restored areas.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The GSD's technical narrative identifies the necessary permits and intent to acquire them. Reasonable assurance is also provided that any easement, deed and/or right-of-way necessary for this proposal will be obtained. Butte-Silver Bow and Anaconda-Deer Lodge City/County governments have both passed ordinances authorizing the establishment of the multi-jurisdictional Greenway Service District. Also of note is that in 1995, the City/County of Butte-Silver Bow designated an open space corridor in the County's *Comprehensive Land Use Master Plan*, along a quarter mile on both sides of Silver Bow Creek.

While the application addresses weed control activities, it does not address weed management requirements specific to public purchases. A weed management plan is required prior to the purchase of the Golden Technologies property or other acquired properties in order to comply with the weed inspection and management requirements of

MCA 7-22-2154. If funded, compliance with this and all other applicable laws would be required in the grant agreement.

9. Resources of Special Interest to the Tribes and DOI – Beneficial Impact

The project is expected to benefit natural resources of special interest, due to the improved fish and wildlife habitat, including wetlands. Comment letters from the DOI and Tribes are contained in Appendix E. The DOI supports funding this project. The Tribes voted in support of funding this project. As indicated in their comment letter, the Tribes consider Butte, Anaconda and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites. The Tribes thus encourage the applicant to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. If funded, the project grant agreement would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes. A database inquiry did not indicate any cultural or historic resources in the project area and the GSD provides for compliance with applicable regulations if these resources are discovered during project implementation.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

All the restoration activities associated with this proposal will be conducted at or near the injured resource areas of Silver Bow Creek.

11. Actual Restoration of Injured Resources – Restoration/Other

The majority of the project costs (66%) are for ecological components (described under technical feasibility criterion) that constitute actual restoration. The other project costs for acquiring lands or easements along the Silver Bow Creek floodplain and for trail bridges contribute to restoration by providing for protection of remediated and restored areas.

12. Relationship Between Service Loss and Service Restoration – Same and Similar

This project will provide some of the same services that were lost as a result of natural resource injuries. Those services include ecological services such as aquatic and wildlife habitat and recreational services such as fishing, hiking, bird watching, wildlife viewing, and open space enjoyment.

13. Public Support – Two Support Letters

The NRDP received two support letters, one from Butte-Silver Bow government and one from Project Green for this project.

14. Matching Funds – None

The GSD does not propose matching funds for this proposal. However, it should be noted that the cost savings obtained by coordinating with remedy should be substantial.

15. Public Access – Increased Access Beneficial

Creating public access in the Silver Bow Creek corridor is fundamental to the Greenway proposal. By securing planned land purchases and/or easements along the corridor, the public will be able to access and recreate along Silver Bow Creek. Weed control activities associated with construction activities are properly planned and budgeted; future weed control will likely be addressed by remedial and GSD maintenance activities. Weed management for acquired properties will initially be addressed via compliance with MCA 7-22-2154.

16. Ecosystem Considerations – Positive

This proposal fits within a broad ecosystem context, as it involves improvements to the headwaters of the Clark Fork River and benefits multiple natural resources. Creating enhanced riparian and aquatic habitat will not only benefit Silver Bow Creek, but should also benefit the Clark Fork River by enhancing water quality and aquatic resources if Silver Bow Creek and the Clark Fork River are someday reconnected, by-passing Warm Springs Ponds.

17. Coordination and Integration – Coordinates/Integrates

The project fits well with watershed benefit priorities set out in the December 2005 *Silver Bow Creek Watershed Restoration Plan*. This plan ranks the restoration importance of 56 different restoration needs in the Silver Bow Creek watershed. It ranks acquisition or easement of lands along the Silver Bow Creek corridor as #6 and classified this restoration need as one of very high restoration importance. Another restoration need that is ranked very high, (#10), is the Greenway trail itself and associated actions needed to secure the trail system along the corridor. Two other restoration needs which ranked as high are encompassed in this application. Restoration need #15 addresses enhancement of fish habitat along Silver Bow Creek. Restoration need #24 addresses enhancement of riparian vegetation and wetlands creation along the Silver Bow Creek corridor.

This project coordinates with the Clark Fork Watershed Education Program (CFWEP), which uses the Silver Bow Creek corridor for classroom activities.

18. Normal Government Functions – Outside of Normal Government Function

None of the project activities entail those that a governmental entity is obligated by law to conduct or would normally conduct. DEQ has determined the proposed revegetation and aquatic efforts to be beyond the scope of remediation.

Land Acquisition Criteria

19. Desirability of Public Ownership – Restoration Beneficial

Public access is a fundamental objective of this proposal. Public ownership or an easement interest in the Greenway corridor lands provides major benefits to injured natural resources and provides replacement of lost services as previously described. The project will enhance restoration of fish and wildlife habitat along Silver Bow Creek. It will provide additional opportunity for a variety of recreational services in or near the Butte, Anaconda, Opportunity, Rocker, and Ramsay communities that were greatly impacted by natural resource injuries.

No known significant negative impacts are associated with the Greenway's proposed conversion of Golden Technologies lands into public ownership. Since the GSD does not pay taxes, there will be a tax revenue decrease under public ownership compared to existing private ownership, plus tax revenues would be higher under a development scenario. The taxes on the Golden Technologies lands were about \$3,400 in 2005. The GSD notes that greenways have increased nearby property values and enhanced revenues to local businesses. With the acquisition of lands in Anaconda-Deer Lodge County, the GSD will experience increased costs for policing and maintaining these lands. As noted under criterion #5, the counties and GSD are willing to accept these increased costs in demand for governmental services associated with acquisition of this property. The NRDP considers the protection of remedy and restoration gained by placing these lands in public ownership to outweigh this negative impact.

20. Price – Uncertain

The cost for the Golden Technologies land and other parcels or easements and appraisals of their fair market value will be necessary. The GSD based estimated land acquisition costs on past land acquisition costs of \$1,000 per acre in Subarea 1, which the NRDP considers to be reasonable.

The GSD intends to coordinate all land acquisition activities with the NRDP. The NRDP's approval of all land acquisition and appraisals before they are completed should be a funding condition and be required in the grant agreement. To be approved, the acquisition price will need to be at or below fair market value.

Clark Fork Coalition Milltown Sediment Removal Project

Project Summary

The Clark Fork Coalition (CFC) seeks \$2.8 million in Restoration Funds over two years for the removal and disposal of an additional 560,000 cubic yards (cy) of contaminated sediment from the Milltown reservoir. Removal of these sediments would restore aquatic and riparian resources of the Clark Fork River by allowing the development of a larger, more baseline floodplain to be established after the removal of the Milltown Dam under the EPA remedial action. The CFC proposes to hire Envirocon, Inc. to remove and haul these sediments to the Atlantic Richfield (AR) Waste Management Area, along with the 2.2 million cubic yards of sediments that they are removing under the Environmental Protection Agency (EPA) remedial action. The application indicates that the exact cost of this removal of additional sediments is uncertain and that the State will negotiate the price for this removal action with the parties responsible for the sediment removal at Milltown: AR, AIG, and their contractor Envirocon (Envirocon). The total project costs are projected to be \$2,794,330, with \$1,253,285 requested for Year 1 and \$1,541,045 requested for Year 2.

The sediments being proposed for removal are 360,000 cy within Sediment Accumulation Area (SAA) IIIB and 200,000 cy within SAA IV and V that are part of the Milltown Sediment Operable Unit located within the Milltown Reservoir area. Specifically, the SAA IIIB sediments lay beneath the current Clark Fork River channel between the Milltown Dam and approximately half-way to Duck Bridge. The SAA IV and V sediments are located upstream of Duck Bridge and are within the area where the State is planning restoration activities, where no remediation will occur. The removal of these sediments coordinates with the Milltown remediation and restoration schedules.

The CFC completed a Project Development Grant (PDG) in 2006 to evaluate alternatives for the removal of sediments within SAA IIIB. They used conclusions of the PDG in this application to estimate a cost that can be considered cost-effective.

Overall Application Quality: Good. The analyses of sediment removal alternatives developed in the PDG were effectively used in this application. The applicant did a thorough job completing the application and it was well written.

Stage 1 Criteria

1. Technical Feasibility – Uncertain Feasibility

The actual construction aspect of this project is technically feasible, as this type of work is currently being successfully implemented at the Milltown site under the remedial action. Envirocon has developed a sediment excavation/removal plan and is in the process of implementing that plan to excavate approximately 2.2 million cubic yards of contaminated sediments from SAA I and transport those sediments to the AR Waste Management Area (formerly Opportunity Ponds) by railcar. EPA and Department of Environmental Quality (DEQ) have approved Envirocon's sediment excavation/removal plan.

The site characterization for construction design and construction oversight tasks included in this application are considered feasible. Typically all sites are characterized before work begins and this project is similar to other sites where materials need to be characterized to determine depth, volume, moisture content, etc. The site characterization will determine the precise volume of material to be removed from SAA IIIB based on the 400 parts per million (ppm) copper remedial cleanup standard. Construction oversight is also a task that is typically done and considered feasible for this project.

The uncertainties associated with this grant project concerns whether or not the timing of this project will correspond correctly with the remedial schedule and whether the parties can agree on the cost to complete the work. The CFC properly recognizes these uncertainties in their application.

Removing these sediments from both areas while remedial action infrastructure is in place should result in a significant cost savings over removing these sediments at a later date. Envirocon is the general contractor at the Milltown site completing the remedial action work for the Settling Defendants. There are requirements that Envirocon needs to complete to meet their contractual obligations with AR. The NRDP staff have met with Envirocon to discuss this additional sediment removal. Envirocon is interested in completing the work, but there are scheduling and cost issues that will need to be resolved. For instance, if the sediments within SAA IIIB are to be included in the removal process, and Envirocon's rail line has been removed, the cost of sediment removal will likely increase. However, if the removal of the SAA IIIB sediments is timed correctly, it could be easily coordinated and the feasibility of the removal will be greater. The NRDP staff believes this coordination can occur.

The uncertainty concerning the costs of this project also needs to be resolved. The State hopes to have an agreement on the costs to remove and haul sediments from SAA IIIB, IV, and V to the AR Waste Management Area by the Governor's funding decision date. If a sediment removal cost of about \$2.5 million and total project cost of about \$2.8 million or less cannot be agreed upon, this project may not be found to be cost-effective and may not move forward or, alternatively, a supplemental or new application may need to be submitted to the NRDP.

2. Relationship of Expected Costs to Expected Benefits – Potential Net Benefit

The cost:benefit relationship of this project depends greatly on the costs developed through the negotiations with Envirocon for the removal of the additional sediments. The total proposal project costs are \$2.8 million. Whether or not the State and Envirocon can agree on a price at or below this proposed cost is uncertain, as explained under technical feasibility.

Benefits of this project include:

- Removal of the SAA IIIB sediments would create a larger floodplain area at the confluence of the Clark Fork and the Blackfoot rivers, thereby further reducing potential future flooding impacts. It is estimated that removing these sediments

would double the width of the floodplain for about ¼ mile upstream of the confluence of the Clark Fork and Blackfoot Rivers.

- Removal of the SAA IV and V sediments would allow uninhibited restoration of the area upstream of Duck Bridge since contaminated material would not need to be amended or avoided.
- With removal of the Milltown Dam, the groundwater table will drop. The additional removal of SAA IV and V sediments will decrease the likelihood that the floodplain will lose its connection with the river.
- Additional wetlands in SAA IIIB, IV, and V would be able to be constructed, thereby improving the sites' natural resource diversity.
- Additional property might become open to public use associated with the SAA IIIB sediments. These sediments are currently proposed to be left as an on-site repository and maintenance of that repository will be the responsibility of AR. Thus, for AR to properly maintain the repository, they will likely not allow the public to access the area associated with SAA IIIB to ensure lower costs.
- The need for long-term maintenance of the armored SAA IIIB sediments by AR would be eliminated.
- On-going sources of groundwater contamination within SAA IIIB, IV, and V located in close proximity to groundwater would be removed.
- Potential sources of downstream contamination from SAA IIIB, IV, and V would be eliminated.

There is a degree of uncertainty concerning the potential impact that erosion of the sediments may have on the downstream environment. EPA is requiring that the SAA IIIB sediments be protected against the 100-year flood event since these sediments have roughly the same concentration of metals and arsenic as the sediments that are being removed under remedy from SAA I. EPA determined that the SAA IV and V sediments do not present a high enough risk to human health or the environment, since these sediments have a lower concentration of metals and arsenic. However, during the Milltown Reservoir Sediments Operable Units remedial investigation/feasibility study process, risk assessments were completed that assessed the impact of the Milltown sediments on human health and the environment. The November 15, 2000, *Draft Focused Feasibility Study*¹ concluded that releases of sediment during a dam failure scenario would not threaten human health. The potential impact on aquatic resources would be more significant; the same document indicates that the population of trout 8 inches or larger was 62% lower after the ice scour event in 1996. The 1996 ice scour event scoured approximately 500,000 cy of sediment downstream. The amount of significantly contaminated material in SAA IIIB, IV, and V is approximately 560,000 cy, similar to the ice scour volume. However, the likelihood that all or a larger portion of SAA IIIB, IV, and V sediments would ever be released is minor because, if they are left in place, they will be either armored out of the 100-year floodplain (SAA IIIB), or be placed outside the 5 to 10 year floodplain (SAA IV and V) and slowly erode over time.

¹ EPA, 2000, "Draft Focused Feasibility Study for the Milltown Reservoir Sediments Operable Unit, Clark Fork River Superfund Site" prepared by EMC2 for ARCO.

While there are uncertainties about the removal costs, if a cost at or below the \$2.8 million used for this application can be agreed upon, the cost:benefit relationship for this project is considered as net benefit because of the restoration benefits associated with the removal of the additional contaminated sediments and other substantial benefits of open space, wetlands, natural areas, trails and new recreation opportunities that the removal would provide.

3. Cost-Effectiveness – Likely Cost-Effective

The CFC presented four alternatives in the application. The no-action alternative does not meet the goals of this application, but is a viable alternative since the no-action alternative will result in the sediments being placed either outside the 100-year floodplain (SAA IIIB) or outside the 5 to 10 year floodplain (SAA IV and V). Although the no-action alternative would provide protection to the aquatic resources, it would not provide the benefits of a larger floodplain, more wetlands, a more natural channel and greater public access, and would not eliminate the aquatic risk.

A second alternative of removing the sediments to a commercial landfill was determined to be very expensive (\$20 million) and not cost-effective. Commercial landfill disposal is considered to not be a viable alternative.

The alternative of constructing a near-site mine waste repository was also considered. The estimated cost of \$4.6 million for the near-site repository is similar to other mine waste repositories constructed elsewhere in the state. Uncertainty with this alternative includes the volume of SAA IIIB sediment and the purchase of Plum Creek Lumber property where a repository could be constructed. Both of these issues are resolvable. The volume of SAA IIIB sediment would be determined in the site characterization phase of this project and discussion with Plum Creek would need to be initiated for property adjacent to the site. Compared to the preferred alternative, the near site repository, at a cost of \$4.6 million, is not as cost-effective, but does provide the same restoration and public benefits. Also, given the low risk that the sediments pose under the no action alternative, it is believed that the near site repository at the estimated costs is not cost-effective; moreover, there would be the adverse environmental impacts that any new repository creates.

The preferred alternative is the removal of the sediments from their current location, transport of the sediments using the rail haul system that will be available through coordination with the remedial action, and disposal of the sediments at the AR Waste Management Area. The estimated costs totaling \$2.8 million for this alternative used in this application were developed using the costs developed in the PDG, and are considered reasonable. If the State successfully negotiates a price at or below the proposed cost, the project would be considered cost-effective. The NRDP staff does believe a cost-effective agreement can be reached.

The multi-year budgeting proposal will allow Restoration Funds to be available in order to coordinate this project with ongoing remediation and restoration actions.

In conclusion, the preferred alternative offers cost-effective benefits, if a reasonable price at or below the dollar amount used for this application can be agreed to with Envirocon.

4. Environmental Impacts – Short Term Adverse Impacts with Mitigation

Short term adverse impacts include impacts to air quality, surface water quality, aquatic species and habitat, threatened and endangered species associated with removal construction activities. If SAA IIIB, IV and V sediments are removed in coordination with the remedial and restoration actions at Milltown, this project would benefit from the mitigation measures tied to the permitting process already planned for remedy and restoration construction.

5. Human Health and Safety Impacts –No Significant Adverse Impact

This project presents no significant adverse impacts to human health and safety. Impacts to human health from this proposed project would be associated with construction worker safety, similar to the worker safety issues the remedial action workers need to consider and would be addressed via safety measures already planned for remedy and restoration construction. Public human health and safety benefits could likely be a result with the implementation of this project. The Milltown sediments, if moved to the AR Waste Management Area, will be used as cover material to control dust from the AR Waste Management Area. Also, the removal of the sediments might reduce the exposure of recreationalists to the contaminated sediments within and downstream of the Milltown Reservoir.

6. Results of Superfund Response Actions – Positive Coordination

The project can be positively coordinated with the Milltown remedial action. The removal of the SAA IIIB sediments would be inconsistent with the existing remediation and restoration plans for the Milltown site and would require modifications of those plans. Both the State and EPA are willing to consider such modifications. The removal of SAA IV and V sediments is a State restoration plan determination. Although EPA does not have approval authority over the State's the removal of these sediments, it has been discussed with and recommended by the Corp of Engineers, EPA's site contractor. The removal of all the sediments could be coordinated with the remedial sediment removal that is already planned by Envirocon for the SAA I sediments. There is some uncertainty concerning the timing since the remedial action schedule is not completely set, but based on progress to date, this coordination can likely occur.

7. Recovery Period and Potential for Natural Recovery – Reduces the Recovery Period

The EPA remedial action and the State's restoration actions will move the site toward a more natural baseline condition, and the additional sediment removal proposed in this application will augment that recovery. This sediment removal project would help restore the aquatic and riparian resources of the Clark Fork River near the confluence with the Blackfoot River. Although the State's restoration plan has been designed with these sediments armored in place outside the 100-year floodplain (SAA IIIB) or moved out of the 5 – 10 year floodplain (SAA IV and V), the removal of the sediments will allow the historic floodplain to be more fully restored, additional wetlands would be able to be constructed, and additional property might become open to public use. In addition, any risk of these sediments becoming a source of potential downstream contamination will be eliminated. This additional floodplain would restore the historic floodplain that was lost with the construction of the Milltown Dam.

8. Applicable Policies, Rules and Laws – Consistent

The applicant lists all the permits and approvals that may be needed for this project. However, since these projects fall within the remedial action area, they would be covered by the Superfund permit exemption clauses. All the actions proposed in this application would be required to meet all substantive permit requirements; however, the actual permits would not need to be obtained.

9. Resources of Special Interest to the Tribes and DOI – Beneficial Impact

The project can benefit natural resources of special interest to the Tribes and DOI, such as bull trout and wetlands. Input from the Tribes and DOI on this project is contained in Appendix E. The DOI supports project funding. The Tribes voted in support of project funding. The Tribal comment letter indicated that Tribal resources are known to exist in the vicinity of the Milltown reservoir and that the provisions in the Consent Decree documents provide for implementation of the proper procedures regarding Tribal resources in the project area. Communications with Tribal representatives indicates that the Tribes have not surveyed the project area. The provisions and requirements of the Record of Decision and Consent Decree will need to be followed to address the concerns of both DOI and the Tribes. The State has worked closely with the Tribes on the Milltown project and it is expected that the Tribes and the State will continue to cooperate.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

This project is located within the Milltown Reservoir Sediment Operable Unit, the State's restoration planning project area for the Clark Fork and Blackfoot Rivers near Milltown, and the injured aquatic resources of the Clark Fork River.

11. Actual Restoration of Injured Resources – Restoration

The project constitutes actual restoration of the aquatic and riparian resources of the Clark Fork River near the confluence with the Blackfoot River, as described under criterion #7. Removal of the additional sediments would facilitate and accelerate recovery of the channel, floodplain, riparian vegetation, and groundwater resources toward baseline conditions.

12. Relationship between Service Loss and Service Restoration – Same

The project would restore the aquatic and riparian resources and associated ecological and recreational services that were subject of the Montana v. ARCO lawsuit. The project is a response to the injuries directly associated with hazardous substance releases from the mining operations that occurred in the Butte and Anaconda area. It would restore lost services by contributing directly to the restoration of the Clark Fork River and floodplain. Over 6.6 million cubic yards of mining contaminated sediment has accumulated behind the Milltown Dam, which was built to support the mining operations in Butte and Anaconda.

Thus, there is a direct connection between the proposed project and services that were lost due to the Milltown Dam and the contaminated sediment that accumulated behind the dam.

13. Public Support – 5 Support Comments

The NRDP received a total of five letters in support of funding this project from the Missoula County Commission, Milltown Redevelopment Working Group, Bonner Development Group, Trout Unlimited, and the Friends of Two Rivers.

14. Matching Funds and Cost Sharing – 0%

The CFC's budget for this project has no matching funds.

15. Public Access – Increased Access Beneficial

The aspect of the project associated with the SAA IIIB sediments would improve site access since this area would no longer be a repository that AR would be responsible for maintaining and could therefore be open to public access, assuming that they are acquired by a public entity. This area would be restored to floodplain. The NorthWestern lands are also being evaluated for public ownership via a separate PDG.

16. Ecosystem Considerations – Positive

This project would have positive effects on the UCFRB resources by removing additional contaminated sediment that could possibly impact downstream aquatic life and by restoring the historic floodplain near the confluence of the Clark Fork and Blackfoot Rivers. The removals proposed contribute to the goals of the State's restoration plan.

17. Coordination and Integration – Coordinates and Integrates

The project considers and coordinates with the restoration actions the State is proposing at the Milltown site. It is consistent with the Milltown Superfund Site Redevelopment Group's 2005 redevelopment plan, since the removal of sediments from the SAA IIIB area will open additional property to potential recreational development. It also coordinates with the CFC's PDG to plan the acquisition of NorthWestern's Milltown lands. Also, the additional sediment removal from SAA IV and V would integrate with DEQ's Total Maximum Daily Load (TMDL) program to reduce the sediment load in the Clark Fork River.

18. Normal Government Functions – Outside Normal Government Functions

The project is considered outside normal government functions, as the proposed removal work is not required to be conducted or funded by any governmental entity.

Butte-Silver Bow Local Government Thompson Park Improvement Project

Project Summary

Butte-Silver Bow City/County, in cooperation with the U.S. Forest Service, requests \$988,402⁷ in Restoration Funds to improve recreational opportunities in Thompson Park near Butte and to improve natural resources along Blacktail Creek, a tributary of Silver Bow Creek that borders Thompson Park. As proposed, the total project costs are estimated at \$1,617,158, with \$628,756 proposed in matching funds.

Thompson Park is a 3,454-acre municipal park, located about 10 miles south of Butte in the Beaverhead-Deerlodge National Forest. Butte-Silver Bow and the U.S. Forest Service jointly manage the park. The Works Progress Administration built the majority of the park roads and recreation sites in the 1930's and 1960's respectively. The park historically was a popular recreational area for the community of Butte and area visitors. However, over time the park's infrastructure has greatly deteriorated and the poor condition of the Park's roads, trails, and bridges causes sedimentation to Blacktail Creek.

The four major components of the Restoration Fund involve: 1) improvements to nine dilapidated recreation sites, such as adding toilets and picnic tables; 2) replacement of three road access bridges and rehabilitation of 2.25 miles of road; 3) improvements to 2.5 miles of trail and abandoned railroad tunnel and trestle structures; and 4) land acquisition and easements. Most tasks are proposed to be designed and started in 2008 and completed in 2009. Almost all components of this project are within Thompson Park; several small projects are within a half mile of the Park.

In 2003, Butte-Silver Bow and the U.S. Forest Service applied to the NRDP for funding for improvements to trails and recreation facilities at Thompson Park and for natural resource enhancements both in and outside of the Park. Some of the project components proposed in 2003 are similar to the present requests; however, many components proposed then are not part of the present proposal. The 2003 project was not approved for funding.

Overall Application Quality: Fair. The application is fairly complete, though some areas such as the budget and alternative analysis were lacking in details sufficient enough to address the criterion, thus requiring supplemental information.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

This criterion involves determining to what degree the project employs well-known and accepted technologies and the likelihood it will achieve its goals. The following discussion focuses on how the four major project components will accomplish the following goals:

⁷ This amount is \$34,585 more than what was in the application. The increase is due to math errors found in the original cost sheets. Total project costs and matching funds also increased from the original costs.

- 1) Manage Thompson Park with emphasis on protection of aquatic and riparian/wetland habitat within the Blacktail Creek Watershed.
- 2) Improve resource-based recreation opportunities balanced with the health of the watershed.

Since Butte-Silver Bow (B-SB) has prepared this application with the cooperation of the U.S. Forest Service (USFS), the term “applicants” used in this evaluation refers to both entities.

A) Existing Recreation Site Improvements (\$251,000)

The proposed improvements to recreational sites involve:

- Construction of a group site and 3 single units at Sagebrush Flats.
- Construction of a host site, group site and parking area at Eagles Nest recreation site.
- Rehabilitation of the Lion’s Den recreation site by construction of 3 single units.
- Construction of a parking area at Blacktail Canyon and at Eagles nest.
- Construction of a parking area and 2 single units at the Nine-mile day use area.

All recreation site work would include grading and leveling and installation of amenities. Amenities at the recreation sites would vary, but most sites would include tables, grill pedestals, and garbage cans. Parking areas would be graded and fenced. The original recreation site facilities, which had tables, fire rings, and toilets had a service life of 20 years or less and no longer exist. All site designs and contract administration work is proposed to be completed by USFS and B-SB staff. The applicants anticipate that all recreational work would be covered in one bid contract. Standard technologies will be implemented for all the recreational improvements and there are no uncertainties associated with the implementation of these improvements.

An uncertainty does exist, however, about whether the long-term management and enforcement needed to protect Restoration Fund investments at Thompson Park will occur. This uncertainty, which was a major concern associated with the 2003 project, applies to the recreational site improvements as well as the other proposed improvements. Some of the changes since 2003 and recommendations currently proposed that address these uncertainties are:

- 1) Joint Management Agreements: B-SB and the USFS signed a MOU in July 2006 that documents the relationship between the B-SB and the USFS regarding the management and maintenance of Thompson Park. The MOU updates and replaces the original 1922 agreement and clarifies that B-SB and the USFS are jointly responsible for managing the recreational sites, roads, and trails, whereas previously B-SB was solely responsible for these facilities. The MOU also provides for a maintenance committee to develop an annual operation and maintenance plan for the Park. The applicants executed a modification to the MOU that covers their commitments for operation and maintenance activities in 2007, which include performing fire protection, patrols, road grading, trail maintenance, garbage collection, and enforcement activities.

- 2) Open fire and firewood cutting ban: A ban on open fires and firewood cutting implemented in 2005 has been effective in almost eliminating fires at the Park.⁸
- 3) Enforcement: The applicants have significantly increased patrolling Thompson Park to reduce juvenile parties, vandalism and garbage throughout the park. The USFS has worked with motorized user groups to provide alternative routes and has employed a part-time seasonal employee to patrol trails and roads and enforce non-motorized regulations.
- 4) On-site Caretaker: The applicants plan to place a volunteer host to stay in the park when park improvements are completed in 2009.⁹ The responsibilities of the caretaker will include opening and closing the gates daily, cleaning recreation sites and toilets, and providing general oversight and information service activities. The USFS has a similar program at the Sheepshead Recreation Area north of Butte and other recreation sites that has been very successful.
- 5) Locked gates: B-SB has committed to installing 3 park gates in the summer of 2007.¹⁰ The locations will be the road entrances at upper and lower Eagles nest, and Lions Den. These gates will help decrease vandalism as well as to keep motorized users off the trails and roads. The gates will be locked according to standard USFS day-use area policies.
- 6) Forest Management: The USFS is working on a project to remove some of the Thompson Park timber areas impacted by the pine beetle. The timber project is in a preliminary stage and more specifics will be known in late 2007. If the project goes forward, it could result in additional funding for resource improvements in Thompson Park and could result in a reduced grant funding request.¹¹
- 7) Longevity Design: The recreational sites are designed for longevity of 25 years. For example, the picnic tables will be cement, not wood.

In addition to these measures, the applicants are considering closing the Park in winter when there is less use and consequently less oversight of the Park. The applicants have also recruited the assistance of volunteer groups to help with maintenance.

By implementing these management actions, the recreational sites and other proposed improvements are more likely to be protected in the long-term, and the project's goals tied to the recreation facilities and other proposed improvements are likely to be achieved.

B) Bridge Replacement and Road Rehabilitation (\$331,000)

The applicants propose to meet a goal of reducing sediment loading to Blacktail Creek by improving access features via:

- Replacement of three access bridges that connect Highway 2 to the Eagle's Nest and Lion's Den recreation sites for \$217,000; and
- Rehabilitation on 2.25 miles of road for \$114,000.

⁸ Information on this topic is contained in a 5/24/07 e-mail from Jocelyn Dodge (USFS) to Gregory Mullen (NRDP).

⁹ Verified in an 5/24/07 e-mail from Jocelyn Dodge (USFS) to Gregory Mullen (NRDP).

¹⁰ Verified in an 5/24/07 e-mail from Cindy McIlveen (B-SB) to Gregory Mullen (NRDP).

¹¹ Verified in an 8/6/07 e-mail communication from Steve Egeline (USFS) to Carol Fox (NRDP).

- 1) The three bridges proposed to be replaced are single lane and have guardrails and underlying culverts that are in poor condition. There are no existing drainage controls around the bridges, allowing sediment to enter the Blacktail Creek. The applicants expect that the proposed bridges will reduce sediment loading because they provide a hard surface over the waterway, as opposed to native soil fill over the present culverts, which are also too short.
- 2) An estimated 2.25 miles of road rehabilitation are proposed to provide adequate drainage and road surfacing. Rehabilitation includes the installations of culverts, grade dips, crushed gravel surfacing, and armored ditches. The existing roads contribute sediments to Blacktail Creek because they exist on erosive native material, have poor drainage features, and are poorly located.¹²

The USFS hydrologist and engineering staff, along with B-SB staff, will inspect and prepare work items to rehabilitate the roads and bridges and have the expertise to perform such work. NRDP has a reasonable degree of confidence that the technologies proposed for the bridge replacement and road rehabilitation can be applied at Thompson Park.

C) Trail/Abandoned Railroad Structure Improvements (\$272,000)

The proposed trail construction and abandoned rail improvements are:

- Construction of 2.5 miles of trails and general trail work for \$82,000;
 - Miscellaneous road obliteration and riparian fencing at Herman Gulch for \$5,000;
 - Trestle fencing and rehabilitation for \$67,000; and
 - Rehabilitation on two rail tunnels for \$118,000.
- 1) The applicants indicate that the USFS standards will be used for trail design and maintenance. Consideration has been given to looping the trails and connecting to adjacent trail systems, specifically the connection between the Milwaukee trail alignment and the Continental Divide National Scenic Trail (CDNSC). Blasting and creating switchback turns will be done on the new trail construction; installation of drain dips, ditches, and berm removal is proposed for trail maintenance.
 - 2) The applicants propose to continue their effort to eliminate motorized use of an old road near Herman Gulch. Restoration Funds are requested on Herman Gulch to fence around a five-acre riparian area to exclude the public and cattle. The USFS will partner with B-SB to construct and maintain the fence.
 - 3) Work proposed at the trestle that crosses Roosevelt Drive involves installing about 150 feet of fencing along both sides to provide safe passage and replacing the curbing at the foot of the trestle. Structurally the trestle is sound, based on a 2004 inspection¹³ by the USFS;

¹² A 2003 sediment survey indicated the roads connecting with the main Eagle's Nest Road and the main road deliver appreciable amounts of sediment during significant precipitation events. Of all the sources surveyed, these roads delivered the highest amount of sediment to Blacktail Creek.

¹³ Trestle inspection memo from John Kattell to Jocelyn Dodge, dated March 3, 2007.

however, the trestle is considered very dangerous to public use since there is no railing along the 100 foot high structure.

- 4) Two abandoned railroad tunnels¹⁴ that were built in the 1906 and then improved in 1941 are proposed to be incorporated in the Park's trail system. A 2006 general condition survey identified general improvements needed to make the tunnels accessible and safe for public use and recommended a detailed tunnel mapping to identify overall repair needs and to design actual repair work in the tunnels.¹⁵ The tunnels are dark and lighting is necessary for safe access through the tunnels. Solar powered lights are proposed and are expected to be the most effective method for lighting the tunnels.

Based on information supplied in the application and supplemental information¹⁶ detailing the project, the NRDP has a reasonable degree of confidence that the technologies proposed for the trail, tunnels, and trestle improvements can be successfully applied at Thompson Park. A NEPA analysis will be performed by the USFS for most of these components, which will further evaluate the proposed methodologies. The USFS has the experience and expertise to perform all of the proposed improvements, based on experience conducting similar work in other areas. The success of the planned management agreements between the USFS/B-SB will be key to the longevity on these improvements.

D) Land Acquisitions/Easements (\$120,000)

Proposed acquisition/easements are:

- Purchase or provide easements on two 20-acre parcels for \$100,000;
 - Purchase two right-of-ways one-half mile southwest of Thompson Park for \$20,000.
- 1) The applicants proposed to purchase or provide easements on two 20-acre private in-holdings, the Hoff and McDonald properties, in Thompson Park. Acquisition of the Hoff property, located in the Eagle's Nest campground, would address management issues associated with improving water quality and aquatic habitats of Blacktail Creek. A right-of-way or purchase of the McDonald parcel, located on the Continental Divide, would provide continuous access to the Continental Divide and other trails accessing Thompson Park.
 - 2) The applicants propose to purchase two right-of-ways from Upper Passmore Canyon located about a half-mile southeast of Thompson Park. The right-of-way from Upper Passmore Canyon will provide the opportunity to relocate one of the trails away from a riparian area to a more suitable location to reduce sedimentation into Passmore Creek. The other right-of-way will provide access from the Thompson Park trails to the Sunshine Kiwanis Camp, a residential camp for low-income youth of Butte.

¹⁴ One tunnel is 530 feet long and the other is 1,175 feet long. They are about one mile apart.

¹⁵ The tunnel survey conducted by Shannon and Wilson was summarized in a 5/10/07 memo from the applicants to Greg Mullen of the NRDP entitled *Thompson Park Budget Update Information*.

¹⁶ Ibid.

The applicants plan to contact the landowners to determine their willingness to either sell the property or obtain a right-of-way. If they are willing, the applicants will order a title commitment, complete a land appraisal, negotiate a purchase or donation agreement, and prepare a site survey. Acquisition work is scheduled for 2008. The strategy for the proposed land work is considered feasible; however, a possibility exists that these acquisition/easements may not occur if the landowner, applicants, and the State cannot agree on acquisition terms or price. The proposed improvements would be enhanced by, but are not dependent on, the success of these acquisitions.

Overall Technical Feasibility

Although this is a project with many varied components, the NRDP considers all the project components to be reasonably feasible. The goals of this project to improve resource-based recreation in Thompson Park and to protect the Blacktail Creek watershed should be realized with the proposed improvements and if proper joint management of Thompson Park is maintained over the long term. Given current agreements in place between the USFS and B-SB and other planned steps to maintain the Park in the long-term, it is likely that the project will achieve its goals.

2. Relationship of Expected Costs to Expected Benefits – Net Benefits

The total project cost, as revised by the NRDP, is \$1,485,078, with \$988,402 requested in Restoration Funds.¹⁷ The approximate breakdown of costs for the Restoration Funds is:

- Existing recreation site improvements – \$251,000 (25%)
- Bridge replacement and road rehabilitation – \$331,000 (33%)
- Trail/abandoned railroad structure improvements – \$272,000 (28%)
- Land acquisition/easements – \$120,000 (12%)
- Project administration – \$15,000 (2%)

The estimated total costs for the design and construction of the proposed improvements and for the land acquisition/easements are considered reasonable. The \$15,000 for B-SB's project administration will be to assist in grant and contract coordination between B-SB and the USFS for the recreation components and the other efforts outlined in this proposal. This amount is only 1% of the total project costs, which is reasonable for coordination of a project with multiple, varied components like this one.

This project will provide substantial recreational benefits to a large public through the proposed combination of improvements, particularly given its proximity to Butte. It will substantially increase recreational opportunities for both B-SB residents and area visitors. The applicants estimate that with the proposed improvements, use of Thompson Park would be approximately 15,000 recreation visitor days per season.¹⁸

¹⁷ As discussed under criterion #14, the NRDP reduced the match proposed by the applicant from \$628,756 to \$496,676, which reduced the total project costs from \$1,617,158 to \$1,485,078.

¹⁸ Another recreation area 20 miles north of Butte, the Sheephead Recreation Area, receives 5,000-6,000 visitors per season and has a shorter season (June through mid-September) than the use season of Thompson Park (mid-April to mid-October).

The recreational sites and associated trails provide opportunities for picnicking, biking, hiking, and open-space enjoyment, wildlife viewing and fishing. The proposed trail construction on 2.5 miles of trails will connect the improved recreation sites to the Milwaukee trail, which then connects most of the other hiking and biking trails in the Park and to the Continental Divide trail. The abandoned railroad tunnel and trestle improvements will benefit a wide range of recreational users by opening up access to four miles of the low-grade trail that will be accessible to people of all ages and abilities to walk or ride the trail. No other trail within Thompson Park provides opportunities for seniors, young children, or people with disabilities at accessible grades. With the proposed recreation site improvements, the rails-to-trails feature, and the associated extensive hiking and biking trails network, Thompson Park has the potential to attract recreational users both locally and regionally. The proposed acquisitions and access easements will enhance recreational opportunities and allow for more efficient management due to elimination of private in-holdings. The project offers an acceptable replacement for lost recreational services in the Butte area.

The project will also benefit the aquatic and riparian resources of Blacktail Creek. The proposed improvements to recreational sites, roads, bridges, and trails will significantly reduce sediment inputs to Blacktail Creek in areas that are expected to have high future use. Properly managing road sediment and drainage, as well as replacing the crossings with bridges, will be a positive action for the trout fishery in the area as judged by FWP fishery biologist, Ron Spoon.¹⁹ Blacktail Creek has a resident population of native cutthroat trout, which will likely benefit from reduced sediment loads.

Overall, the project costs are reasonable and the planned expenditures will result in net benefits to natural resources and the public's use and enjoyment of natural resources. It is possible that proceeds from the timber salvage sale could be used on some of the project components that are subject of the Restoration Fund request.²⁰ The NRDP thus recommends a funding condition requiring that certain actions that could be funded with the USFS revenues from the timber sales be delayed pending resolution of the timber sale issue, in order to leverage this funding and increase the cost-benefit relationship of the Restoration Fund request. However, should the delays jeopardize the overall project implementation schedule of completion by 2009, the NRDP may fund the project without timber sale revenues, or may require timber sale revenue be used for certain future project-related actions eligible from timber sale revenues.

3. Cost-Effectiveness – Likely Cost-effective

This criterion considers whether this project accomplishes its goals the least costly way possible, or whether there is a better alternative. Below is an analysis of alternatives to the four major components of the proposal. For all components, the NRDP found the cost estimates to be reasonably based on similar work that the USFS has conducted at other recreational sites.

¹⁹ E-mail from Ron Spoon (FWP) to Jocelyn Dodge (USFS) on May 25, 2007.

²⁰ E-mail communication from Steve Egeline (USFS) to Carol Fox (NRDP) on August 6, 2007.

A) Alternatives to Improving Recreation Sites

The NRDP agrees with the applicants that, without the proposed recreational site improvements, the purpose of the park to provide the use of lands for varied recreational uses and users would not be met and erosion for these deteriorating areas would continue to deliver sediments to Blacktail Creek. The proposed alternative is appropriate, given that the recreational site areas are already in place and the area is dedicated as a municipal recreation area. It would be more expensive and environmentally disruptive to locate the proposed recreational features in other areas. The recreation sites are appropriately designed for maximum longevity and to reflect the historical character of the park, which will likely be a federal requirement due to the Park's historical significance.²¹

B) Alternatives to Replacing Bridges and Rehabilitating Roads

The NRDP agrees with the applicants that, without rehabilitating the main roads and bridges, erosion problems, would continue to significantly degrade aquatic resources of Blacktail Creek, and the Park would not support the desired recreational uses. The applicants considered but rejected the alternative of replacing the culverts without bridge placement, due to input from fishery and hydrology specialists that this alternative would have similar costs, but would disturb a larger area of the stream crossing. The only other alternative of constructing new roads and stream crossings would be more costly and environmentally disruptive. The proposed alternative for road rehabilitation and bridge replacement provides a logical and cost-effective approach for reducing sediment loading into Blacktail Creek.

C) Alternatives to Improving Trails/Abandoned Railroad Structures

The NRDP agrees with the applicants that, without the proposed 2.5 miles of trail relocation, the steep slopes and erosion problems would remain, the quality of recreation opportunities would remain reduced, and maintenance costs would increase. The areas proposed for trail relocation are well placed to maximize public use.

The applicants considered by-pass trail alternatives to the re-use of abandoned railroad structure improvements in the application and in a supplemental addendum to the application.²² One by-pass trail alternative to tunnel work that would keep a 4 to 5% grade would require 1.5 miles of new trail and a 75-100 foot bridge to span a ravine. The estimated amount for this route, which would involve extensive blasting, would be \$130,000 to \$170,000. The other alternative would be placement of a shorter trail that would have steeper grades of 8 to 10%, which would cost between \$115,000 and \$135,000. This range of costs for these alternatives of \$115,000 to \$170,000 is 35% to 52% less than the estimated total cost to repair the tunnels of \$326,000, but similar to or higher than the NRDP request for tunnel repair of \$118,000. Similarly, a by-pass trail alternative around the trestle would cost about \$50,000, which is about half the \$107,000 trestle improvement cost, but close to the \$67,000

²¹ According the applicants, the extra cost associated with having the 20 picnic tables and 4 toilets meet the historical character design requirements totals \$16,000. The NEPA analysis will likely identify these requirements as necessary to meet federal historic mitigation requirements.

²² This May 10, 2007 addendum, entitled the *Thompson Park Budget Update Information*, provides some general project update/information and further analyzed the cost-effectiveness information for the trail components of the project.

Restoration Fund request. The applicants note that since the matching funds for these improvements are specific to rails-to-trails, additional funding would be needed beyond the Restoration Fund request to complete the by-pass trails alternative.²³

The applicants maintain that the use of the existing 4.5 miles of abandoned railroad and the tunnels and trestle offer a unique recreational experience and that, by connecting the other trails in Thompson Park with this abandoned rail line, the entire Thompson Park investment would be greatly enhanced. They note the great popularity of other similar rails-to-trails corridors, such as the one in Coeur d'Alene, Idaho. The increased trail distances associated with the by-pass trail alternative could also limit the use of the entire corridor by seniors, youth, and people with disabilities due to the distances. In addition, the by-pass trail alternatives require greater disturbance to the natural resources for which the costs are not quantified. A by-pass trail around the trestle would also present safety issues, as users would have to cross Roosevelt Drive at dangerous corner or continue to illegally use the unfenced trestle to cross Roosevelt Drive. The NRDP agrees with the applicants that the proposed improvements to the tunnels and trestles would provide greater benefits, less environmental impacts, and better achieve the goal of providing quality recreation opportunities to the public than the less costly alternative of by-pass trails around the tunnels and trestle.

D) Alternatives to Land Acquisition/Easements

The applicants did not provide an alternative analysis for the \$120,000 requested for land acquisition or easements in the Thompson Park area. Based on the reasons the applicants provide for pursuing the acquisition and easements and the reasonable basis for the estimated costs (see criterion #20), the NRDP considers this effort cost-effective. While the proposed improvements would still derive benefits if these efforts are not successful, the project benefits would be greatly enhanced with these acquisitions.

Overall Cost-Effectiveness

In summary, the NRDP believes that the applicants have proposed the appropriate combination of improvements to optimally meet their overall goal of improving and managing recreational facilities in Thompson Park, in a manner that is protective of natural resources. The chosen alternatives for the proposed improvements are appropriately designed to minimize environmental disruption and to maximize longevity, reuse of existing access features, public accessibility and use, and natural resource benefits. While the application did not include a thorough alternatives analysis, based on the supplemental information provided by the applicants and given the reasonableness of the project costs, the NRDP considers the project as likely to be cost-effective.

²³ The proposed but unsecured match for the tunnel and trestle work includes \$98,000 from NorthWestern Energy for tunnel lighting, \$94,000 from FWP Recreational Trails Program for the cement work on the unlined segment of the trails in the tunnels and \$40,000 from the FWP Recreational Trails Program for the trestle fencing. The NorthWestern Energy match could not be used elsewhere in Thompson Park if the tunnel work was not performed. The FWP grant submission was specific to a rails-to-trail corridor; therefore, the applicants would have to reapply for grant funds if this aspect of the project is eliminated.

4. Environmental Impacts – Short-Term Adverse Impacts with Mitigation

The project does not appear to pose any significant adverse environmental impacts. The applicants identified all potential environmental impacts and acknowledged the necessary permits. Some short-term adverse impacts may potentially occur due to construction, such as turbidity in the creek; however, the applicants note these impacts will be mitigated through best management practices during construction. The planned NEPA analysis will provide an in-depth analysis of potential environmental impacts and alternatives.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

The applicants indicate that short-term impacts to human health and safety will be addressed by implementing standard worker safety plans and traffic control plans during construction.

6. Results of Superfund Response Actions – Consistent

This project will not duplicate or interfere with results of a completed, planned, or anticipated Superfund response action.

7. Recovery Period and Potential for Natural Recovery – May Reduce the Recovery Period

Blacktail Creek has the potential to provide spawning and refuge areas for trout migrating to and from Silver Bow Creek. This project could improve the recovery time frame of injured aquatic resources of Silver Bow Creek, once remediation of Silver Bow Creek has been completed and the water quality has improved.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The applicants' technical narrative identifies the necessary permits and intent to acquire them for the construction components of the project. Those permits include a stormwater construction permit and the multiple permits required to work in the floodplain (310, 124, 3A, 404, and floodplain permit).

Weed management is a component of the 2007 operation and maintenance plan. The application does not address the weed inspection and management requirements of MCA 7-22-2154 that are specific to public purchases and would apply to this proposal. If funded, compliance with this and all other applicable laws would be required in the grant agreement.

In addition, the USFS is required to perform a NEPA analysis for the majority of the project components. This analysis will provide further evaluation of the project, including a further evaluation of alternatives and of potential environmental impacts. Although the applicants have anticipated much of the alternative evaluation and historical mitigation requirements that will be part of the NEPA process, the applicants should coordinate the NEPA activities with NRDP, and notify NRDP of any NEPA decision which could alter the project. NRDP may withdraw all or a portion of funding based on a NEPA decision that is inconsistent with the applicants' proposed project.

9. Resources of Special Interest to the Tribes and DOI – Beneficial Impact

This project is expected to have a beneficial impact to the natural resources that are of special interest to the Tribes and DOI given the expected benefits to the aquatic resources of Blacktail Creek, which supports native westslope cutthroat trout. The Butte-Silver Bow Historic Preservation Officer indicated that there are no Tribal resources in the project area and the applicants properly plan to comply with state and federal historic preservation regulations.

Comment letters from the DOI and Tribes are contained in Appendix E. The DOI supports funding this project. The Tribes voted in support of funding this project. As indicated in their comment letter, the Tribes consider Butte, Anaconda, and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites. The Tribes thus encourage the applicant to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. If funded, the project grant agreement would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

The project is mostly inside the 3,454-acre Thompson Park located about 10 miles south of Butte. A small portion of the project components would be on the adjoining USFS lands.

11. Actual Restoration of Injured Resources – May Contribute to Restoration

While this project does not involve the direct restoration of injured resources addressed by Montana v. ARCO, it may contribute to the restoration of the Silver Bow Creek fishery as described under criterion #9.

12. Relationship Between Service Loss and Service Restoration – Same and Similar

This project will provide some of the same recreational services that were lost as a result of natural resource injuries, such as hiking, picnicking, wildlife viewing, and open space enjoyment. Proposed improvements should reduce sediment inputs to Blacktail Creek, thereby enhancing both water quality and fishery habitat and associated fishing opportunities.

In its minimum qualification determination (contained in Appendix C), the NRDP noted the need to judge whether the proposed railroad structure improvements were more about providing users an experience of being on a railroad, which is not a type of recreational service covered under Montana v. ARCO, than about providing hiking trail access. As summarized under criterion #3, the NRDP believes these improvements offer the best option for providing hiking trail access for varied uses and users. Based on further evaluation, the NRDP concludes that these improvements provide for acceptable replacement natural resource based recreational opportunities similar enough to those covered under Montana v. ARCO.

13. Public Support – 13 Support Letters

The NRDP received a total of 13 letters in support of this project from the USFS, B-SB Chief Executive, B-SB Parks and Recreation, Rotary Club of Butte, B-SB Chamber of Commerce, the Governor’s Office of Economic Development, Montana Tech, Project Green, B-SB Sheriff, Butte Rotary Club, Clark Fork Watershed Education Program, Butte Local Development Corporation, Pete Madison, and East Ridge Foundation.

14. Matching Funds – 39% proposed by applicants; 33% as revised by NRDP with 50% in-kind match and 50% cash match

The applicants propose a total match of \$628,756; however, the NRDP does not consider \$132,080 of this proposed match as a direct match, because these funds are for five recreational improvement projects on national forestlands near Thompson Park that have been funded and will be implemented independent of the proposal.²⁴ NRDP guidance requires that matching funds be actual costs spent to complete the proposal that is subject of the Restoration Fund request. The remaining matching funds of \$496,676 that the NRDP considers as a direct allowable match include:

- \$93,781 of in-kind funds from B-SB/USFS for recreation site design, contract preparation, and administration.
- \$100,000 of in-kind funds from USFS to conduct the NEPA analysis, which is required for most of the proposed improvements in the Park.
- \$248,560 of cash match for rail tunnel and trestle, via unsecured grants from NorthWestern Energy and FWP’s Recreation Trail Fund Program.
- \$31,170 of in-kind funds from B-SB/USFS and MT Tech student labor for trail enhancement.
- \$23,165 of in-kind funds from B-SB/USFS for road and bridge project design, contract preparation, and administration.

The following table summarizes NRDP’s matching funds determination.

Budget	Restoration Funds	Matching Funds	Percentage of Match	Total Budget
B-SB/USFS Budget	\$988,402	\$628,756	39%	\$1,617,158
NRDP Revised Budget	\$988,402	\$496,676	33%	\$1,485,078

About half these matching funds are in-kind and half are cash.

In addition to the identified matching funds, B-SB intends to donate its 1930 Blacktail Creek junior water right of 500 gpm for in-stream flows. The B-SB right accounts for 13% of all water rights in Blacktail Creek and is junior to 14 other rights. B-SB is in the process of changing this water right from an irrigation purpose to an in-stream flow use. B-SB also intends to place a conservation easement on 104-acres of land with mining claims, thus

²⁴ These five items, which cost \$130,080, are: 1) Continental Divide Trail work; 2) Beaver Ponds Trail relocation; 3) Canyon campground rehabilitation; 4) Pipestone Pass trailhead work; and 5) seven miles of trail maintenance.

precluding any future mining and logging in the area. B-SB will draft the easements and begin the approval process through the Council of Commissioners by fall of 2007. While the value of the water right and easement donations are not quantified for the purpose of matching funds, they will be beneficial to the project.

15. Public Access – Increased Access Beneficial

Substantial public benefits will occur via the new and enhanced public access created by this project. The present amount of use was not provided; however, it is most likely far less than the estimated use of 15,000 visitor days per season of that would occur with the proposed improvements.

The anticipated increased recreational use that will result from the proposed improvements will increase the need for weed control and the demand for governmental services. The NRDP believes the applicants have properly planned to provide the needed services, as described under criterion #1 and criterion #8.

16. Ecosystem Considerations – Positive

The project addresses multiple resource problems and will improve aquatic resources by reducing sediment input to Blacktail Creek, which is a headwater tributary of Silver Bow Creek.

17. Coordination and Integration – Coordinates/Integrates

This project fits well with watershed benefit priorities set out in the December 2005 *Silver Bow Creek Watershed Restoration Plan*. This plan ranks three restoration needs as high that the project would address: 1) the need for restoration of the Blacktail creek fishery due, to the presence of genetically pure westslope cutthroat trout (ranked #16); 2) the need for recreational facilities in Butte and restoration needs to develop a variety of recreational features, such as parks, open spaces, and trails that are readily accessible for citizens of all ages (ranked #19); and 3) the need to upgrade Thompson Park recreation facilities (ranked #20).

The applicants plan to coordinate with several of Butte's educational organizations, including the Clark Fork Watershed Education Program (CFWEP) to use Thompson Park as an outdoor classroom. CFWEP has used the area in the past for classes but school buses cannot access the Park unless the proposed road and bridge improvements are made.

The project links to and thereby coordinates with nearby trails on national forestlands outside of the Park, such as the Continental Divide Trail, which has been prioritized for improvements by the USFS in the next five years.

18. Normal Government Functions – Within but Augments Government Functions

The NRDP agrees with the applicants that this project is one that will augment, not replace, normal government functions for the following reasons:

- While the Park is owned and jointly managed by the applicants, neither entity is required by law to conduct the proposed improvements nor are they routinely funded for the improvements, which entail capital improvements that go well beyond routine operation and maintenance activities. The facilities in the Park have gone well beyond their service life and were not replaced as they should have been when they wore out decades ago due to lack of funding.
- The USFS regularly utilizes grants as a way to supplement Congressional funds when those funds are inadequate to meet the needs to manage the resources and meet the increasing public demands for utilization of public lands. The USFS relies on grants for recreation, range, wildlife and fish projects from a variety of sources. An example is the FWP Recreation Trails Grant funding a local cycling club obtained for improvements to the popular Beaver Ponds trails on national forest lands just east of the Thompson Park boundary. Another example are the rails-to-trails projects implemented nationwide through partnership funding from federal, state, local, and private entities.²⁵

It is unlikely that, without supplemental grant funds, the proposed improvements would be conducted in the near future due to funding constraints at the county level and other priorities that dictate funding at the federal level. The Beaverhead-Deerlodge National Forest competes with every other national forest for limited dollars and within the Forest, there are 111 recreation sites which compete for these limited funds. Within the Beaverhead-Deerlodge National Forest, over 100 miles of Continental Divide National Scenic Trail work is scheduled over the next 5 to 7 years. All other trails are a lower priority and must compete with other forests in the Northern Region and nationwide. Similarly, B-SB funding for Thompson Park improvements has to compete with funding for other city parks and recreational facility projects for the limited funds available.

- Restoration Funds are being requested for 2.5 of the 21 total miles of trail system in the park, or about 7% of the Park's trails.
- Both agencies have committed through a MOU to conducting routine operation and maintenance activities in Thompson Park and maintaining the proposed improvements in the long-term, as explained under criterion #1.
- The applicants are providing \$496,697, or a 33% match, via a combination of in-kind and other grant funding sources for the improvements that are subject of the Restoration Fund requests.

For these reasons, the NRDP concludes that this project augments normal government activities beyond a level required by law and for which funding is presently insufficient to implement the project. The grant funding will result in improvements that would not otherwise occur through normal agency function.

²⁵ See www.railtrails.org for general information on trail funding options for rails-to-trails projects.

Land Acquisition Criteria

19. Desirability of Public Ownership – Replacement Beneficial

Public ownership of or an easement interest in all lands within Thompson Park enhances recreational opportunities for Butte and other communities that were impacted by natural resource injuries. The current tax revenue from the 40 acres to be acquired is \$751.48. The acquisitions would not significantly increase the demand for governmental services because they are minor additions (40 acres) to a much larger park area (3,454 acres) already under government ownership and management. The benefits of acquisitions are considered to outweigh these negative impacts.

20. Price – Uncertain

The actual price for land parcels or easements has not been determined; therefore, it is uncertain how they compare to fair market price. Appraisals will be conducted as part of the proposal. The project applicants have based land acquisition costs for the Hoff property, with the assistance of a local realtor, at \$4,000 per acre. The McDonald parcel has no access, so a \$1,000 per acre cost was estimated. The Huber and Henningsen easements at Upper Passmore Canyon are estimated to cost \$10,000 each, based on similar properties in the area.

The applicants need to coordinate all land acquisition activities with the NRDP. The NRDP's approval of all land acquisition and appraisals before they are completed should be a funding condition. To be approved, the acquisition price will need to be at or below fair market value.

Butte-Silver Bow Local Government Big Hole Transmission Line Replacement

Project Summary

Butte Silver Bow City County (B-SB) proposes to replace 10,000 feet of dilapidated transmission lines that carry water from the Big Hole River to Butte. Total project costs are \$2,192,963, with \$1,644,722 requested in Restoration Funds and \$548,241 in matching funds. Approximately 60% to 80% of Butte's water supply comes from the Big Hole River, which is 22 miles south of Butte. The Big Hole is also Rocker's main water source.

Butte's bedrock aquifer is so severely injured that natural recovery will not occur for thousands of years, as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water storage, capacity and transport services have been lost for thousands of years. The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock groundwater injuries in Butte. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean bedrock groundwater in much of the City.

Overall Application Quality: Good. The application is fairly complete, though some areas were lacking in details sufficient enough to address the criterion, thus requiring supplemental information.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

This evaluation involves determining to what degree the project employs well-known and accepted technologies and the likelihood it will achieve its goals. B-SB's goal is to replace 10,000 feet of corroded transmission water lines from Butte's main water source, the Big Hole River. The 22 mile transmission line extends from the Big Hole Pump Station¹ at the Big Hole River to the Feeley treatment plant on the Continental Divide, about half way to Butte, and then extends to downtown Butte (see Figure 4 on page 20). Most of the proposed replacement sections of pipe (8,900 feet) are between the Big Hole River and the Feeley pump station. Only 1,100 feet are proposed for replacement between the Feeley pump station and Butte. Major project tasks include: 1) selecting a consulting engineering firm; 2) producing the designs for pipeline replacements; 3) preparing and releasing bids to select a vendor for materials; 4) implementing construction; 5) preparing record drawings for work completed; and 6) updating the BSB records and database. B-SB proposes to perform the pipeline replacement with B-SB construction crews.

¹ The Big Hole River pump station was constructed in 1899 and significantly upgraded in 1994 with the placement of 5 new 500-horsepower pumps that can deliver up to 14 million gallons per day through the transmission line.

When the Anaconda Company replaced the Big Hole transmission line between 1967 and 1977,² it was not installed in an acceptable manner using acceptable products. The majority of the pipe is spiral weld, ¼ inch thick, bare steel pipe, some of which was used pipe. There is little to no coating on the outside of the pipeline and a marginal coating of bitumastic tar (aka coal tar) coating on the inside, which is a material that is not suitable for pipes transporting potable water. Presently most of the pipeline has extensive leaks. In 2006, the transmission line had 41 leaks and in the past 10 years, 22 leaks per year on average have occurred. In comparison, Helena and Great Falls had one leak, and Bozeman, Kalispell, and Billings had no leaks in their water transmission lines. The entire 22 miles of pipeline needs to be replaced; however, B-SB is focusing this request on three severely corroded separate sections of pipe that have had the worst leak problems in the past two years (see Figure 4 on page 20).³

The B-SB Department of Public Works has experience with using county crews for the replacement of transmission lines. B-SB will use standard construction methods and materials to implement the project. Since 1995, B-SB crews have replaced 37,000 feet of 16, 20, or 36 inch transmission lines in the Butte area, including 2,300 feet of the Big Hole line. B-SB conducted this past work in-house and prefers to do future work in-house, due to the control needed for such efforts, such as proper timing for shutdown of the Feely water treatment facility. The work can likely be completed within the proposed budget because B-SB used the costs from replacing 1,100 feet of the Big Hole line in late 2006 to budget for this proposal. The new cast/ductile iron pipe used in 2006 and to be used on this project is expected to have a useful service life of over 100 years.⁴ For these reasons, the NRDP believes the project is reasonably feasible and likely to achieve its goals.

2. Relationship of Expected Costs to Expected Benefits – Net Benefits

Costs proposed for this project total \$2,192,963, with \$1,644,722 (75%) requested in Restoration Funds and \$548,241 (25%) in matching funds from B-SB. Construction costs are estimated at \$1,823,636. Restoration Funds are requested for the project materials (\$1,393,832) and B-SB will provide all the labor and equipment costs for placement of the pipeline (\$429,804). Engineering costs for the project are estimated at \$328,255, with \$250,890 to be provided by Restoration Funds and \$77,365 to be provided by B-SB. B-SB will also pay county salaries and wages for project management estimated at \$41,072. Project costs are considered reasonable, as described under cost-effectiveness.

The project offers substantial benefits to a large public. The Big Hole River is the primary water source for B-SB consumers. It typically supplies 60-80% of Butte's water supply, but during past drought years, it has supplied as much as 95%. The town of Rocker also depends on the Big Hole River for its water supply. The leaks in the line are numerous, with some severe enough to be detected at the treatment facility. The pipeline is unquestionably in

² The original transmission line consisted of two wooden pipelines.

³ Per a phone conversation between Pat Boone of B-SB and Greg Mullen on 6/7/07.

⁴ At the 4/15/07 Advisory Council Presentation, Jean Pentecost indicated the service life of the new pipe is 100 years under normal conditions and that, with the coating and the extra plastic layer, a 100 year service life is likely.

critical need of repair, and this project would fix 10% of the total line in three sections that have some of the worst leaks, with a total of 42 reported leaks. The number and severity of the leaks in the Big Hole transmission line affect all the water users and thus have a greater impact than the leaks associated with the water main lines distribution lines in the City of Butte that serve a portion of the water users.

Along with improving the delivery of a reliable drinking water source, benefits associated with the leak repairs include: a reduced demand on water resources; reduced water pumping, treating, and transportation costs; reduced repair costs; reduced contamination potential to drinking water supply; and improved flows and fire protection. B-SB does not have the data needed to estimate the reduced costs associated with this project.

The State's 1995 Restoration Determination Plan considered upgrading Butte's water system as a justifiable replacement alternative for the bedrock aquifer injuries in Butte. This proposal, which is of similar nature, represents an important step in compensating the public for some of the lost use of groundwater resources of Butte's bedrock aquifer. Given this, and the substantial benefits and reasonable costs associated with this project, the NRDP considers it to be of net benefit.

3. Cost-Effectiveness – Likely Cost-Effective

B-SB considers the proposed project the most economical alternative to replace lost services from injured groundwater resources. B-SB's analysis of alternatives was, however, more narrowly focused on evaluating alternatives to address the problems associated with the water distribution system.

B-SB indicates that the no action alternative would eliminate one of the few viable means to replace the lost services that groundwater would provide. It is not a viable alternative because it would not accomplish project goals.

B-SB considered the alternative of system-wide metering. Currently 43% of the users are metered. B-SB states that this alternative is not cost-effective, since the majority of the water lost is through leakage and not through misuse or waste and that the existing metering rate structure would be insufficient to support funding needed for capital improvement projects. B-SB does not provide any backup data to support this claim. Based on data provided for the Anaconda metering study proposal, metering could be a more cost-effective alternative to conserve water.⁵ System-wide metering would not, however, fix the needed infrastructure, which is Butte's stated goal. The B-SB Water Master Plan, which should be completed this fall, will investigate system-wide metering further and should determine the most cost-effective alternative for future water conservation activities in Butte.

B-SB also considered replacing the transmission line using contractors. Using the engineering estimate provided by their consulting engineer, B-SB estimated the costs of contracting the project would be \$685,000 more than the estimated costs for in-house

⁵ Water Metering and Distribution System Modeling Study March 2007 Restoration Grant application, prepared for Anaconda-Deer Lodge County by BETA consultants.

construction. B-SB indicates this greater total project cost would overextend its ability to provide matching funds. While a review of this estimate by an independent engineer would be needed to verify this estimated cost differential, work currently being performed by B-SB crews on the 2005 project indicates substantial cost savings over the validated engineers estimate.⁶ As indicated under technical feasibility, B-SB has the in-house expertise to conduct this work and doing the work in-house allows for B-SB's needed controls associated with the treatment plant. B-SB's estimated costs for the in-house work seem reasonable, as they are based on actual costs incurred for similar work done in December 2006, adjusted for projected increases for labor, equipment, inflation (3%), and with a 15% contingency factor. B-SB has committed to paying its workers a wage that meets or exceeds Montana Department of Labor prevailing wages.⁷

B-SB indicates an alternative water supply or source is not a viable alternative, but does not provide any supporting information for this claim in the analysis of alternatives. The Molten and Big Hole treatment plants were built to support the water source or quantity of water rights that are owned by B-SB. The Molten and Basin Dam reservoirs have not filled to capacity in a number of years due to drought. At capacity, the Basin Dam supplies only up to 30% of Butte's water needs and the Molten reservoir up to 5%. Silver Lake is another water source for Butte; however, this source is designated for industrial use only, via the water rights, and is mostly used by Montana Resources, Inc. for its mining operations. In addition, the Silver Lake system is in disrepair and in need of improvements estimated to cost between \$13 and \$16 million in 1998.⁸ Approximately \$20 million has been spent on the Big Hole Treatment plant, which is a significant investment. The Big Hole River is the major water rights and water supply (up to 14 MGD) for Butte. The NRDP agrees that an alternative source other than the Big Hole is not a viable option based on existing water rights owned by B-SB.

In summary, while B-SB does not provide a thorough alternatives analysis, the NRDP believes the project as proposed is a likely cost-effective alternative to addressing problems with the water distribution system that are specific to the Big Hole transmission lines.

4. Environmental Impacts – No Significant Adverse Impacts

Replacing Butte's transmission line presents no significant adverse impacts to the environment. The project will have potential short-term adverse impacts to aesthetics and vegetation associated with excavation activities. B-SB will reclaim disturbed areas. The project will have a potentially beneficial impact on conservation of water by reducing the total amount of Big Hole River water and treated water lost due to leaking pipes.

⁶ See details provided in the criteria evaluation of the Butte Waterline project on page A-59 of this document.

⁷ Based on statements made by Jon Sesso of B-SB at the August 14, 2007 Advisory Council meeting and Paul Babb of B-SB at the August 16, 2007 TRC meeting.

⁸ *B-SB Industrial Water and Wastewater Master Plan*, prepared for B-SB by MSE-HKM, August 1998.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

Potentially adverse impacts to the human environment during construction activities include worker accidents, dust, and noise. B-SB will adequately address these impacts by following safety guidelines of the Montana Public Works and Standard Specifications. In addition to bringing clean water to Butte, replacing the impaired transmission lines will improve proper pressure and flow for fire fighting purposes.

6. Results of Response Actions – Consistent

This project will not duplicate or interfere with results of a completed, planned, or anticipated Superfund response action.

7. Recovery Period and Potential for Natural Recovery – No Effect

This replacement project will not affect the bedrock aquifer's recovery period, which will not occur for thousands of years.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The applicant has provided sufficient information on the applicable requirements needed to complete this project. The following two standard procedures will be implemented:

- B-SB will submit all design drawings for water pipeline replacements to DEQ for review and approval prior to performing the work.
- B-SB will follow Montana Public Works Specification in the implementation of the project, including those for ditch width, pipe bury depths, safety measures, and related specifications.

9. Resources of Special Interest to the Tribes and DOI – No Impact

Comment letters from the DOI and Tribes are contained in Appendix E. The DOI does not object to funding this project. The Tribes voted in support of funding this project. As indicated in their comment letter, the Tribes consider the Butte, Anaconda, and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites. The Tribes thus encourage the applicant to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. The application indicates there are no known historical or cultural resources in the vicinity, but does not indicate a historical/cultural resource database inquiry was conducted. If funded, the project grant agreement would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes.

Stage 2 Criteria

10. Project Location – Partly Outside the Basin but Serves the Basin

About half of the Big Hole transmission line is in the Basin and about half is south of the Basin boundary at the Continental Divide. The pipeline services water users that reside in the UCFRB.

11. Actual Restoration of Injured Resources – No Restoration

This is a replacement project; actual restoration of the bedrock aquifer is infeasible. The State recognized this infeasibility in its 1995 Restoration Determination Plan that selected a replacement alternative for this groundwater injury.

12. Relationship Between Services Loss and Service Restoration – Same

Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water, its storage capacity, and transport services have been lost for thousands of years. This proposal constitutes replacement of lost services to thousands of property owners and other members of the public in Butte that could utilize the aquifer if it was not injured. By fixing leaking and corroded water transmission lines, this proposal will enhance the water supply from an unaffected source. Thus, there is a direct connection between lost services and the services this project will replace.

13. Public Support – 7 Support Comments

The NRDP received support comments on this project from the B-SB Chief Executive, B-SB Water Treatment Plant manager, B-SB Fire Services, B-SB Local Development Corporation, Trout Unlimited, Port of Montana, and Project Green.

14. Matching Funds and Cost Sharing – 25%

Restoration Fund Request:	\$1,644,722 (75%)
B-SB cash match:	\$ 77,365 (4%)
B-SB in-kind match:	<u>\$ 470,876 (21%)</u>
Total:	\$2,192,963

B-SB has matching funds of \$548,241, or 25% of the total project costs, for this proposal. The matching funds consist of \$470,876 for in-kind labor and \$77,365 for contracted services.

Though not considered a cost share for this specific project request, B-SB has noted the \$50 million already invested by Butte municipal drinking water system ratepayers over the past 14 years.

15. Public Access – Not applicable

Public access is not a component of this project, nor is it relevant to the project.

16. Ecosystem Considerations – Positive

The project will conserve water and therefore reduce power requirements for pumping and treating water. Also, by using less water from the Big Hole River, which is a blue ribbon trout stream, the project may assist in protecting the fisheries of the river.

17. Coordination and Integration – Coordinates/Integrates

This project coordinates with other waterline projects being implemented by B-SB.

18. Normal Government Functions – Within but Augments Normal Government Functions

Upgrading municipal drinking waterlines is a normal responsibility of local governments that is typically accomplished via funding from grants and ratepayers. For projects like this one that augment normal government function, the *RPPC* contemplates cost sharing by the applicant.

The costs B-SB faces to upgrade their system are greater than typical community costs due, in part, to the pervasive groundwater contamination underlying Butte. In the absence of that injury, Butte may have been able to construct a simpler and less expensive nearby groundwater system than the existing system that relies on more distant uncontaminated surface water sources, as further documented in the State's 1995 NRD assessment report.⁹

While B-SB water rates are somewhat higher than some other similar communities,¹⁰ B-SB does not currently meet the target rates for eligibility for grants funds such as the Treasure State Endowment Fund and Renewable Resource Grant and Loan programs, because B-SB's combined water and sewer rates are lower than the target rate for combined systems.¹¹ This target rate, which is based on user rate survey and community median household income, is an indicator of whether the applicant is contributing a reasonable amount towards state project financing. In addition, currently only 43% of B-SB water users are metered. B-SB indicates it will evaluate the necessity of a rate increase in order to maintain the current level of system improvements in the forthcoming Water Master Plan, which is to be completed this fall. This Plan will also evaluate system-wide metering.

⁹ *Revised Report and Rebuttal: Assessment of Damages to Groundwater and Literature Review of Water Use Values in the Upper Clark Fork River Drainage*, Duffield, October, 1995. Note: this report estimates lost use values for Butte's bedrock and alluvial aquifers.

¹⁰ B-SB's average flat rate is \$46.58, average monthly metered rate \$32.23.

¹¹ B-SB's combined target rate is \$53.81 and B-SB's actual combined metered rate is \$45.73, as per http://comdev.mt.gov/Census_Results.asp and John Van Daveer, B-SB phone conversation with Tom Mostad NRDP, May 24, 2007.

The proportionate amount of replacement pipeline to be funded by Restoration Funds versus ratepayers or other sources is a factor in considering how much a project augments versus replaces normal government function. This proposal would replace 10% of the total transmission line; B-SB to date has replaced 2%. B-SB has not indicated its intent regarding future Restoration requests. For the on-going 15-year water main replacement program, Butte is seeking Restoration Funds for about 30% of the needed replacement.

A final consideration of this criterion is the amount of cost sharing provided by B-SB. B-SB has committed to a 25% match of this proposal, which is in the range of the previous years' match provided for the water main replacement projects of 25 to 32%. Given this match, the NRDP believes this project is one that acceptably augments normal government function, not replaces it.

Powell County Johnson Creek Recreational Trail and Cottonwood Creek Outdoor Native Education Center

Project Summary

Powell County requests \$608,015 in Restoration Funds to enhance natural resource-based recreational and educational opportunities in the Deer Lodge Valley. Powell County developed this proposal via a Project Development Grant (PDG) funded in 2006 to evaluate trail and educational center alternatives.

The project primarily involves the design and construction of a two-mile recreational trail along Johnson Creek and an outdoor education center along Cottonwood Creek. Features include a trail to improve and expand public access to both creeks, a handicap accessible fishing access site, and outdoor educational facilities and signage. The educational component of the project will provide opportunities for both children and adults to understand the ecosystem and enhance stewardship of natural resources. Powell County is proposing matching funds totaling \$478,981 for a total project cost of \$1,086,996.

Overall Application Quality: Fair. The application was fairly complete, though it lacked an adequate level of detail in some areas. The alternatives analysis needed more details and investigation as well as costs. Supplemental information was required to complete the evaluation and was provided in a timely manner.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

This evaluation involves determining to what degree the project employs well-known and accepted technologies and the likelihood it will achieve its goals. The goal of this project is to enhance natural resource-based recreational and educational opportunities in the Deer Lodge Valley. To accomplish these goals the project has two major components, the Johnson Creek Recreation Trail and the Cottonwood Creek Outdoor Native Education Center. These components are described below, followed by a summary of their feasibility.

Johnson Creek Recreational Trail Description (Figure 5 on page 24)

Powell County proposes to design and construct a two-mile recreational trail along Johnson Creek that would enhance natural resource-based recreation by providing a trail within the community of Deer Lodge and providing users easy access to Jaycee Park and the proposed Outdoor Native Education Center. Implementation would occur over the course of one year with construction activities to occur during the summer and fall of 2008. The tasks for the trail component of the project include: project management, surveying and obtaining easements, design and construction of the trail and footbridge, addition of amenity features, planting of vegetation, and fencing. The trail is divided into four sections, two of which are

owned by the county, one is owned by the city, and the other section is located on private land.

Amenity features such as garbage receptacles, benches, picnic tables, and interpretive signs will be installed. Five interpretive signs will be located along the trail to educate users on the natural resources in the area as well as the remediation and restoration work taking place in the UCFRB.

Vegetation will be planted along the trail to enhance the recreational experience and provide additional bank stability. Planting native plants and grasses will reduce the potential for noxious weeds to invade and out-compete native species. A row of trees will be planted throughout Section 3 of the trail. The proposal calls for planters to be installed and filled with perennial flowers.

Cottonwood Creek Outdoor Native Education Center Description (Figure 5 on page 24)

Powell County proposes to design and construct an Outdoor Native Education Center along a portion of Cottonwood Creek in the City of Deer Lodge. This outdoor classroom will be comprised of several learning stations that focus on the relationship between the area's natural resources and remediation and restoration activities in the Clark Fork Basin. The learning stations will include fisheries, water quality, water chemistry, riparian habitat, wildlife, native grasses, soils, and native culture. The stations will be orientated around various vegetation zones (riparian, forest, wetland, and grassland). Each learning station provides opportunity to perform hands-on learning and experiments about each resource and observe how each system functions. Lesson plans for each learning station will be finalized by the Clark Fork Watershed Education Program (CFWEP). CFWEP will also provide training and technical assistance to teachers to help foster a successful program.

The tasks for the education center include project management, surveying, design, development of lessons plans, program outreach; drilling a well and installation of a sprinkler system; acquisition and demolition of property; and construction of the trail, nine learning stations, handicap fishing access site, and a parking area. Approximately 2,300 feet of trail will be constructed throughout the outdoor education center and connecting to the handicap fishing access site.

The application details two alternatives for Station 2. The first option involves the construction of a plexiglass viewing area on the bank of Cottonwood Creek. The second alternative involves the installation of a streamside exhibit with a small stream gauging station. After the Fish, Wildlife and Parks (FWP) fisheries biologist raised concerns regarding the viewing station option,¹ the County agreed to pursue the gauging station alternative.²

The application also provides two alternatives for a wetland feature to be included in Station 3. The first alternative involves the construction of a wetland feature connected to

¹ Email from Jason Lindstrom (FWP) to Kathy Coleman, dated May 11, 2007.

² Email from Renee Meyers to Kathy Coleman, dated June 5, 2007.

the creek. The second alternative involves the construction of a wetland in the existing upland portion of the education center. After initial input from the FWP fisheries biologist indicating concerns regarding the construction of the wetland connected to the creek,³ the County agreed to pursue the upland construction option.⁴

The following NRDP evaluation of the feasibility and other *RPPC* criteria is thus based on the gauging station and upland wetland feature alternatives. Further evaluation by NRDP and FWP of these alternatives at the final design phase may indicate the connected wetland alternative to be acceptable.

Project Feasibility (Both Components)

Overall, the project activities to be completed for both the Johnson Creek Recreation Trail and the Cottonwood Creek Outdoor Native Education Center employ standard technologies that are reasonably feasible and can achieve the stated recreational and educational goals. While there are uncertainties that are described below, these uncertainties can likely be resolved.

The designs included in the application for both the recreation trail and the outdoor education center are conceptual in nature, lacked details, and subject to change based on input from the public, NRDP, and CFWEP. The County has appropriately provided for NRDP approval of final design plans for both the trail and the outdoor center. NRDP advocates that the design of the trail, education center, and the handicap fishing access site for this project meet with American Disability Act (ADA) standards. The applicant has indicated the contractor procured to design and construct the project will be responsible for meeting ADA standards during the final design stage.⁵

Operation and maintenance issues (including weed management) of the trail and center were not detailed in the application; however, after further consultation with the County, the NRDP has learned that Powell County will be responsible for all maintenance of the trail, including weed control and trail maintenance.⁶ During final design, Powell County will work with the weed district to develop a weed management plan. The County will implement and provide funding for all weed maintenance. Powell County High School has agreed to perform all necessary operation and maintenance on the education center, including maintaining and providing electricity for the well and sprinkler system.⁷

The application indicates there are several permits that will be required in order to implement this project. These permits include a 124 (Montana Stream Protection Act), a 404 (Federal Clean Water Act), a 318 (Short-Term Water Quality Standard for Turbidity), a floodplain development permit, and a water rights permit, if applicable. Depending on the area of disturbance, a stormwater discharge permit may also be needed. The County has properly planned for obtaining the needed permits, based on final design, prior to construction.

³ Email from Jason Lindstrom (FWP) to Kathy Coleman, dated May 11, 2007.

⁴ Email from Renee Meyers to Kathy Coleman, dated June 5, 2007.

⁵ Email from Renee Meyers to Kathy Coleman, dated May 13, 2007.

⁶ Email from Renee Meyers to Kathy Coleman, dated May 13, 2007.

⁷ Letter from Powell County High School to Kathy Coleman, dated June 5, 2007.

Powell County owns the majority of the property needed for the Johnson Creek trail and Powell County High School owns the large parcel of land on which the education center will be located. Three small properties would be acquired for the trail and fishing access portions of the education center. The total purchase price for each of these properties must be based on a valid appraisal approved by NRDP, as further described under criterion #20. A risk does exist that negotiations with multiple landowners might not result in the acquisition of all planned properties. Alternate design options exist if acquisitions fail. Since Powell County provides for NRDP approval of final design plans, any changes in design that would result from failure of the acquisition would be subject of NRDP approval. In addition to these acquisitions, easements must be secured from the County, the City of Deer Lodge, and a private landowner for the Johnson Creek trail. Via letters in the application, all of these entities have expressed their willingness to provide the easements at no cost. A funding condition is needed that would require NRDP review and approval of these easements to assure their consistency with the proposed public use of the trail.

This project's potential to meet its goal of providing hands-on educational opportunities is enhanced by the County's coordination with CFWEF and CFWEF's proven accomplishments with place-based learning. In addition, the County plans to involve teachers in the design stage of both the learning stations and curriculum to assist in making the project sellable to area educators, thus increasing the likelihood of success.

Lesson plans and signage must pertain to the natural resources or services that were subject of Montana v. ARCO. The County has provided for NRDP approval of the lessons plans and signage, thus the NRDP can assure this legal requirement is met.

Program outreach will be necessary to effectively reach all potential participants in the community. The applicant indicates that the outreach will be completed by the contract engineering or construction firm awarded the contract. The NRDP questions the use of an engineering or construction firm to effectively perform public outreach duties for an outdoor educational center. Therefore, the NRDP recommends a funding condition that the public outreach duties be performed by Powell County or their designated project manager.

Uncertainty does exist regarding the ability to maintain usage and interest in the education center when the public outreach is discontinued. However, given the proximity to Powell County High School and the association of CFWEF in the project, NRDP feels confident that the education center will provide educational opportunities into the future for both children and adults to understand the natural resources of the area and enhance stewardship.

2. Relationship of Expected Costs to Expected Benefits – Net Benefits

Powell County estimated the proposal budget to be \$1,086,996, with \$608,015 (56%) requested in Restoration Funds and \$478,981 (44%) proposed in matching funds. The NRDP has reduced the allowable match fund amount to \$53,550 (8% of the total budget), which reduces the overall budget to \$661,565 (see criterion #14). The breakdown for the Restoration Fund budget is as follows:

Project Administration	\$ 40,549 (7%)
Johnson Creek Trail	\$159,435 (26%)
Education Center	\$345,379 (56%)
Contingency	<u>\$ 62,652 (11%)</u>
Total	\$608,015

The majority of Restoration Funds \$397,576 (57%) will be for contracted services, with \$49,400 for contracted projected management services and \$348,176 for contracted design and construction services. The remaining costs include \$103,900 (17%) for acquisitions, \$40,549 (7%) for project administration, \$62,652 (11%) contingency and \$3,338 (2%) miscellaneous. The NRDP believes that these costs are necessary to accomplish the projects goals and reasonable, particularly given the low property acquisition costs, and the donated easements for the trail and the donated use of school district land for the education center.

The expected recreational benefits of this project include increased public access and natural resource-based recreational opportunities, such as hiking, fishing, open-space enjoyment, and bird-watching to a large public, given the project area location in the middle of Deer Lodge. The proposed Johnson Creek trail will provide easy access to Jaycee Park and the proposed outdoor education center. It will also provide a connection to Grant Kohrs Ranch, as well as the proposed Deer Lodge Community Trail Project, which enhances its recreational benefits. The construction of a handicap fishing access along Cottonwood Creek offers significant recreational benefits, given its location in the center of the Deer Lodge community. The outdoor education center also offers open-space enjoyment benefits with its trails and natural resource areas.

The educational benefits of the project include providing students and adults an understanding of natural resources and the remediation and restoration efforts taking place in the UCFRB, via hands-on curriculum for the outdoor education center and interpretive signs throughout the Center and along the Johnson Creek Trail. Educating individuals about the restoration of injured resources can increase the likelihood that the UCFRB's future residents will be engaged in restoration and be responsible stewards for the watershed. These benefits should be enhanced by the ideal location of the outdoor education center adjacent to Powell County High School and their interest in the project.

The NRDP believes both the Johnson Creek recreational trail and the Cottonwood Creek outdoor education center will provide significant benefits for the public's use and enjoyment of natural resources to a large public at a reasonable cost. The NRDP thus considers the project to offer net benefits.

3. Cost-Effectiveness – Likely Cost-Effective

The applicant considered three alternatives to the proposed approach: (1) a no-action alternative; (2) the alternative of designing the trail along Cottonwood Creek; and (3) the selected alternative of the trail along Johnson Creek and the Cottonwood Creek Education Center.

Under the no-action alternative, hands-on education would be available in the community through CFWEP, but not at the scale the outdoor education center will provide and not at a location adjacent to Powell County High School. Recreational trail opportunities would be available through the proposed Deer Lodge Community Trail Project. However, this trail system would not provide the connectivity to the outdoor education center and Jaycee Park that is provided through the proposed alternative. The no-action alternative would not meet project goals.

The County had pursued the alternative to design and construct the trail along Cottonwood Creek in combination with the education center; however, there were several feasibility problems associated with this alternative, including lack of public support. At a public scoping meeting, the majority of residents wanted the trail located along Johnson Creek, not Cottonwood Creek. In addition, at least five homes would have to be acquired and demolished in order to provide land for the trail to be constructed, plus other access agreements would be needed. This alternative would not be cost-effective due to high acquisition and demolition costs and the landowner opposition. While a trail on Cottonwood Creek would offer a better streamside recreational experience than on Johnson Creek, which is dry the majority of the year, the NRDP agrees this alternative is not likely to be either feasible or cost-effective.

Another alternative considered early on by the applicant was to build a structure for the education center. This alternative was dismissed because of reluctance on the part of Powell County High School to maintain a structure and also because of cost:benefit relationship questions raised by NRDP.

The NRDP considered the alternative of funding one component of the project, but not the other. Doing so would greatly diminish the combined recreational and educational benefits that can be achieved under the preferred alternative, plus the benefits that result from the coordination of the two components would be eliminated. While each component individually would provide some recreational and educational opportunities, those opportunities would be of a different magnitude and type than what would be provided with both components (e.g., the fishing opportunities of the Cottonwood Creek component compared to the hiking opportunities of the Johnson Creek component or the educational signage of the Johnson Creek component compared to an outdoor education center of the Cottonwood Creek component). While the costs of this partial funding alternative are less, it would not achieve the overall project goals and is thus considered an inferior alternative to the preferred alternative.

The NRDP believes the level of effort and costs of the proposed Johnson Creek trail and the Cottonwood Creek education center are reasonable and the proposed approach for both components is sound. While the County did not provide a thorough analysis of alternatives, the NRDP considers the project as likely cost-effective.

4. Environmental Impacts – Short-Term Adverse Impacts with Mitigation

No significant adverse impacts to the environment are expected as a result of implementation of this project. A potential exists for some short-term impacts to the environment associated

with construction activities; however, the County is prepared to acquire the proper permits and, with the recommended mitigation efforts, the impacts on the resources will be minimal. Efforts requiring a permit would be the drilling of a well for the education center, trail work along the stream, and vegetation planting along the stream. All construction work along the stream will take place during low flows to minimize any impacts to the channel or aquatic life. Proper trail building and maintenance practices will be used to decrease the potential for erosion.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

A potential exists for short-term adverse impacts to human health and safety during construction activities. The County notes that mitigation and safety measures will be implemented to minimize any impacts associated with construction activities such as dust and noise. The County indicates compliance with OSHA regulation will be required of contractors.

6. Results of Superfund Response Actions – Consistent

The implementation of the proposed recreational and educational enhancements would not interfere or duplicate the results of Superfund response actions. Neither component is within the historic 100-year floodplain of the Clark Fork River nor within a tributary reach that will receive remedial action.

7. Recovery Period and Potential for Natural Recovery – No Effect on Recovery Period

The tasks associated with this project will have no effect on the recovery of natural resources.

8. Applicable Policies, Rules and Laws – Consistent

There are several permits that must be obtained to complete this project and Powell County has appropriately identified and planned for obtaining them. Legal access easements must be obtained for the Johnson Creek trail. The application included letters from landowners indicating their consent to these easements.

State law relating to weed control places certain weed control responsibilities on state agencies and municipalities (MCA 7-22-2151). While the application does not address weed control activities, Powell County has indicated in subsequent correspondence that they would be responsible for weed control and abide by state and local weed management requirements.⁸ The application also does not address the weed inspection and management requirements of MCA 7-22-2154 that are specific to public purchases and would apply to the proposed acquisitions. If funded, compliance with this and all other applicable laws would be a requirement in the grant agreement.

⁸ Email from Renee Meyers to Kathy Coleman, dated May 13, 2007.

9. Resources of Special Interest to the Tribes and DOI –No Impact

It is unlikely that the project will have a negative impact on tribal historic or cultural resources; however, a database search of historical or cultural sites has not been conducted. The County indicates that if such features are identified via a database search or during construction activities, the proper agencies will be consulted.

The County is planning on connecting the proposed Johnson Creek trail with the community trail on Main Street that will connect to Grant Kohrs Ranch National Historic Site. Coordination and discussion with the National Park Service is underway to finalize details associated with the exact location of the connector route.

Comment letters from the DOI and Tribes are contained in Appendix E. The DOI does not object to funding the project. The Tribes voted in support of funding this project. As indicated in their comment letter, the Tribes consider the Butte, Anaconda, and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites. The Tribes thus encourage the applicant to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. If funded, the project grant agreement would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

The project would be within the City of Deer Lodge and near the injured resources of the Clark Fork River. Education activities would pertain to the natural resources that were subject of Montana v. ARCO. The County will also make program materials available to Montana schools outside of the UCFRB.

11. Actual Restoration of Injured Resources – No Restoration

The construction of the trail is a replacement project and not intended to accomplish restoration of an injured resource. The educational aspects of the project may indirectly contribute to restoration by promoting stewardship of those resources.

12. Relationship between Service Loss and Service Restoration – Similar

The project will replace lost or impaired services. Recreational enhancements such as a trail along Johnson Creek and a handicap access fishing site along Cottonwood Creek would enhance recreational services such as fishing, hiking, bird watching, and open space enjoyment that are considered equivalent to the recreational services lost that were the subject of Montana v. ARCO.

The proposed outdoor classroom and interpretive signage would be used for public education about injuries to and restoration of natural resources in the UCFRB. The application indicates that the outdoor classroom would help educate school-age children and other

members of the community about natural resources and how these resources are an integral part of restoration and remediation activities in the area. The educational facilities can enhance the stewardship of natural resources. By enhancing stewardship of restored resources, the project will also enhance the services they provide. Education projects such as this one that pertain to the natural resources or services that were subject to Montana v. ARCO can also be viewed as projects that can replace the lost or impaired existence or non-use values of Montana citizens that were covered under Montana v. ARCO. This grant would follow a line of restoration grants in other states that focus on the restoration of lost services through interpretive and public education about the injured or lost natural resources.

One aspect of the project that does not meet the goals of NRDP with respect to natural resources would be the applicant's proposal to plant perennial flowers in pots for beautification purposes at a cost of \$1,500. Powell County has agreed to use this funding for the other vegetation efforts instead of the flowers in pots.⁹

13. Public Support – 9 Support Letters

The NRDP received a total of nine letters in support of funding this project from the Powell County Superintendent, City of Deer Lodge, Clark Fork Coalition, Powell County Commission, Watershed Restoration Council, Deer Lodge Valley Conservation District, Powell County Museum and Art Foundation, Clark Fork Watershed Education Program, and Gary and Dawn Chilcott.

14. Matching Funds and Cost Sharing – 44% (5% In-kind) as Proposed; 8% (5% In-Kind) as Revised by NRDP

Powell County is proposing a match of \$478,981, of which \$25,350 is in-kind through provided labor and the appraisal and title work. The proposed match includes \$162,000 that Powell County was awarded to design and implement portions of a community trail system which will connect to Johnson Creek.¹⁰ In addition, the County proposes that the \$271,631 of FEMA funding awarded to replace the Claggett and Clark Street bridges be considered match.

NRDP guidance requires that matching funds be actual costs spent to complete the proposal that is subject of the Restoration Fund request. The Deer Lodge Trail system and FEMA bridges are independent of the trail and outdoor education center proposed for Restoration Funds. The NRDP therefore concludes that the \$162,000 proposed match for the Deer Lodge Trail system and the \$263,431 proposed match for the FEMA bridges are not allowable as matching funds. A portion of the FEMA money, \$8,200 for new concrete sidewalks on the Claggett and Clark Street bridges, is acceptable match since these sidewalks provide needed pedestrian access to the project. The following tables summarize the proposed and revised matching funds.

⁹ Phone communication between Carol Fox of NRDP and Renee Myers on June 22, 2007.

¹⁰ The application listed a total amount of \$162,000 for the Deer Lodge Trail System. However, in correspondence dated 6/5/07 from Ron Hanson of Powell County, amount for proposed match for this trail system was increased to \$235,000.

Proposed	
Grant for Plants	\$ 20,000
Trail Money	\$ 162,000
FEMA Grant	\$ 271,631
In-Kind Labor	\$ 24,000
Powell County In-kind	\$ 1,350
Total	\$478,981

As Revised by NRDP	
Grant for Plants	\$ 20,000
Trail Money	\$ 0
FEMA Grant	\$ 8,200
In-Kind Labor	\$ 24,000
Powell County In-kind	\$ 1,350
Total	\$ 53,550

15. Public Access – Increased Access Beneficial

The project aims to increase public recreational access to Johnson and Cottonwood Creek via the outdoor education center. Areas disturbed during construction activities and increased foot traffic have the potential to increase weeds. Increased public access along the trail area will also increase the demand for governmental services. The County has anticipated this and has agreed to provide needed weed management as well as operation and maintenance costs for the trail. Powell County High School has agreed to provide maintenance on their property containing the outdoor education center.

16. Ecosystem Considerations – Positive

Ecosystem considerations are not relevant to the recreational service aspects of this project. However, the educational facilities can contribute to the furthering of knowledge of children and adults about ecosystem concepts and stewardship.

17. Coordination and Integration – Coordinates and Integrates

Powell County plans to coordinate the project with the approved FEMA flood mitigation project. FEMA will fund the replacement of the Claggett and Clark Street bridges, which will provide access to Johnson Creek trail and the education center. Additional coordination may be able to occur through use of the same contractor.

In spring 1998, the Deer Lodge Chamber of Commerce commissioned a conceptual design of a “Deer Lodge Community Trail Project.” As designed, that trail project of about five miles would go from the old Deer Lodge Prison on the south side of town to I-90 on the north side with trail components in the downtown area, along the Clark Fork River, and at the Grant Kohrs Ranch. Powell County intends to coordinate its planning efforts for the Johnson Creek trail with the Deer Lodge Trail project and provide for links between the two trail systems.

The educational component of this project will be coordinated with the CFWEP as discussed in criterion #1.

18. Normal Government Functions – Outside Normal Government Functions

No governmental entity is funded or required to conduct the planning and development of the proposed trail system or outdoor education features. While the local school district and county own most of the lands that would be considered for the outdoor classroom and the county and city own most of the lands for the trail, these governmental entities are not required or funded to plan and develop such facilities.

Land Acquisition Criteria

19. Desirability of Public Ownership – Replacement Beneficial

The three properties proposed for acquisition are 605 and 607 Cottonwood, as well as 232 Clark. These properties include two homes and a vacant lot. They will be purchased for the education center and to provide creek access for the handicap fishing site. The potential benefit of public ownership of these properties is summarized under Criterion #2. Public ownership of this property will provide replacement of lost or impaired recreational services as described under criterion #12.

The current tax revenue generated by private ownership of the land is \$2,628. If these properties are acquired by the County, the tax revenues will be less than those generated now. Adding the proposed lands to existing county lands will also increase the demands for governmental services. The NRDP believes that the positive aspects of acquisition of this property outweigh the impacts.

Given the above factors, the NRDP considers this project as one for which public ownership is beneficial overall.

20. Price – Reasonable

Appraisals and title work has been completed on all three parcels. The properties at 605 Cottonwood and 232 Clark, which have homes currently on them, will need to be demolished. The property at 607 Cottonwood is a vacant lot. The total appraised price for all three properties, based on fair market value, is \$100,200. The NRDP has reviewed and approved these appraisals. While Powell County is willing to provide additional funding if the buyer's purchase price exceeds fair market value, purchasing property above fair market value would be inconsistent with the *RPPC*. A new appraisal, subject to NRDP approval, would be needed to validate a purchase price for any of the parcels that is above the appraised values provided in the application.

Anaconda-Deer Lodge County

Water Metering and Distribution System Modeling Studies

Project Summary

Anaconda-Deer Lodge City County (ADLC) proposes to conduct a water metering study and a distribution system modeling study. These studies will be used by ADLC to predict, prioritize and plan future water conservation activities and educate the public on the benefits of water metering. The project costs are \$107,771 in Restoration Funds and ADLC will provide \$6,247 in matching funds for a total cost of \$114,018.

Anaconda is located adjacent or partially within the 40 square miles of groundwater contamination associated with the Anaconda Regional Water, Waste, and Soils Operable Unit. Groundwater resources are somewhat limited because the upper portion of the alluvial groundwater aquifer east of Anaconda is contaminated with metals associated with past mining activities at levels above water quality standards. The 1995 State of Montana *Anaconda Groundwater Injury Assessment Report* supports this claim of groundwater contamination east of Anaconda. Also, the 1998 *Anaconda Regional Water, Waste, and Soils Operable Unit Record of Decision* indicates about 30 square miles of contaminated bedrock groundwater to the north and south of the City.

Overall Application Quality: Good. ADLC's application was well written, however, it lacked details in some sections, thus requiring supplemental information.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

The proposal involves conducting water metering and distribution system modeling studies to assist with future water system improvement decisions. ADLC's proposed goals of the project are to:

- Conduct a defensible, objective engineering study of, and associated public outreach on system-wide water metering in the community to allow fiscal planning for future metering.
- Prepare a current computer-based model of Anaconda's water distribution system, including supply, storage, and transmission facilities, to allow a theoretical analysis of proposed improvements, predicting their effectiveness before undertaking design.

Both of the proposed studies employ well-known and accepted technology.¹ The water metering study will investigate ways to select and estimate the cost of various meters and meter reading technology to accommodate a variety of installation implementation scenarios, which are needed to set water rates and verify the technical needs of the system. In addition, the metering study will attempt to educate the public about the benefits of implementing a system-wide metering program. The water distribution study will determine the most appropriate size and location for new and replacement water main projects, which could modify the water conservation priorities in ADLC's May 2004 *Preliminary Engineering*

¹ Gary Sturm, PE (Tetra Tech, EMI), Application Review April 18, 2007.

Report Municipal Water System (PER). This computer model is typical of municipal water supply master plans such as the PER, but was not part of the one completed for Anaconda.

ADLC has demonstrated with the success of past projects that they have the management skills to complete the studies and associated activities and will procure a qualified consultant to conduct them. The NRDP has a reasonable degree of confidence that the proposal to complete these studies and associated public outreach can be achieved and the stated project goals can be met. It should be noted that while there is no significant uncertainty with meeting the stated study goals, whether or not the metering study and associated public outreach will lead to system-wide metering is uncertain, as further addressed under the benefit:cost criterion.

2. Relationship of Expected Costs to Expected Benefits – Commensurate Benefits

The proposal's budget to develop the water metering and water system modeling distribution studies is \$107,771 in Restoration Funds, which includes \$3,900 for grant administration, with \$6,247 in matching funds for a total cost of \$114,018. To better evaluate the benefits and cost of each study, they are evaluated separately.

Water Metering Study

The water metering study includes administration, existing water system data collection, development of metering alternatives and recommendations, public education activities and reporting. The estimated Restoration Fund cost for ADLC to contract the water metering study is \$49,970, which includes \$10,707 for the public educational aspects of the proposal.

ADLC's 2004 PER is currently used to identify and prioritize the needed municipal water system improvements for Anaconda. The PER states that, while a water metering installation program is not identified as the highest priority (it is the second highest priority); the benefits of metering are numerous. One large benefit that ADLC recognizes is that system-wide metering could result in water savings of 20% to 50%. By conducting metering concurrent with water main replacement projects, ADLC would be directly addressing the two primary problems with the water system. The water replacements can substantially reduce the water system losses, while the metering can essentially eliminate excessive wasting of water. These activities will benefit the City of Anaconda by reducing the need to seek additional water supplies and lowering water distribution costs since water pumped from the wells will not be lost through leaking pipes or unneeded water use.

There are uncertainties associated with the benefits of the public educational portion of the proposal. The proposal does not offer a definitive plan of the educational activities, but instead offers potential outreach activities/public meeting/public hearings. More importantly, the proposal lacks details on how this education program will change the current negative perception of metering in Anaconda.² In any case, it is possible that when the public is educated about the cost savings achievable through water conservation, they could change their views. The public could also change their negative opinion if they understood there are more potential grant opportunities when a community agrees to implement metering. For example, the Community Development Block Grant, Treasure State Endowment, DNRC

² A 2003 Community Survey randomly selected 500 residents, of which 44.5% responded and ranked water metering as the last of 17 priorities for municipal enhancement and improvements; from ADLC 2007 Application.

Renewable Resource Grant/Loan, and USDA Rural Development Programs give preference to communities that have meters. The educational program could be successful even though the proposal is not specific on how this could occur.

In addition, implementation of system-wide metering needs to occur for the full potential benefits of this study to be realized. Even if metering is delayed, the benefits of this study will diminish because the cost of metering is likely to increase fairly rapidly as other construction costs have over the past few years. ADLC has stated that they cannot absolutely commit to system-wide metering in the future, though they recognize the potential benefits of metering and have committed to trying to educate the public about metering.³

Without the implementation of system-wide metering, this portion of the proposal has no benefit. However, if system-wide metering is implemented in the future, this portion of the proposal has the potential to have net benefits. Thus the cost:benefit relationship of metering study is uncertain.

Water Distribution System Study

The water distribution study includes administration, collection of existing data, development of hydraulic model, model calibration, development of high use scenarios, and reporting. The estimated Restoration Fund cost to contract for the water distribution study is \$53,901.

The direct benefits of this study will be to better predict, prioritize and plan future water conservation activities. The 2004 PER that established ADLC's current water system priorities did not include a computer model to assist in the identification of water leak problems. Computer models are typical for water systems that serve cities the size of Anaconda.⁴ The 2004 PER cost of \$20,000 is much less than is typical for a PER for a city like Anaconda. The computer model will fill a data gap that is left by the PER.

An example of how this computer model could assist in planning projects is the proposed South Birch Street Booster Station installation that was approved for funding as part of the 2006 Anaconda water main replacement project. The booster pump was proposed to solve the South Birch Street chronic low water pressure problem. Since the time it was proposed, however, the pressure to the area has substantially increased due to the water savings as a result of the, 2005 West Fourth water replacement and the need for valve throttling along that corridor has been reduced. A computer model could have predicted the cause of the Birch Street low pressure problem and allowed for better planning.

ADLC notes that even replacing one block of water main unnecessarily would waste more money than the proposed system modeling will cost.⁵ Therefore, the NRDP considers the computer model of high net benefit because the modeling could yield substantial benefits in a short amount of time by better planning and use of limited funds for water conservation projects in Anaconda.

³ Phone conversation with Becky Guay of ADLC and Carol Fox and Tom Mostad of NRDP on May 21, 2007.

⁴ Phone conversation with Gary Sturm of Tetra Tech EMI and Tom Mostad of NRDP on May 21, 2007.

⁵ ADLC's Water Metering and Distribution System Modeling Studies Application March 2007, Page 44 (360ft at \$150/ft = \$54,000).

The overall benefit of the entire project is negatively affected by the uncertainty of the implementation of the water metering study. If implementation of system-wide metering would occur the entire project may have high net benefits or at least net benefits. However, when the uncertainties of the implementation of the metering study are taken into consideration, the NRDP judges the overall benefit of the project as commensurate with the cost of the proposal.

3. Cost-Effectiveness – Likely Cost-Effective

The proposal considers the no-action alternative, which would result in neither of these studies being conducted. This would mean the 2004 PER, which has been shown to lack adequate information to correctly identify water system problems, would remain unchanged. In addition, since Montana Rural Water Systems (MRWS) is preparing ADLC's water rate study and ADLC is conducting a water system leak study, both to be completed in 2008, integration of these studies could provide valuable information that would not be obtained without integration. The no-action alternative does not accomplish the goals of the project or coordinate with other studies and is therefore not considered an acceptable alternative.

ADLC proposed another alternative that would alter the scheduling of the proposed studies. This alternative would delay scheduling one or both of the studies, which could result in missed integration of the all of the study information, similar to the no-action alternative. Delaying the proposed studies does not optimally coordinate with other studies or accomplish the goals of the project.

The 2004 PER's alternatives analysis determined that distribution system replacement was the recommended alternative and system-wide water metering was a second priority that should be done concurrently with water main replacement. ADLC has set a date of 2009 to start to install system-wide water metering; however, in the past, they have set two dates for metering that have been deferred. The cost of system-wide metering was estimated at \$2.1 million in the PER, but an update by ADLC stated the cost would likely exceed the initial estimate and may be up to \$3 million.⁶ A computer hydraulic modeling study was not contemplated in the 2004 PER.

The water metering study is needed to conduct public education, update implementation costs and to complete needed technical analysis prior to implementing system-wide metering. The computer model is needed to identify and prioritize water main replacement projects. Together these studies provide the planning needed to cost-effectively maximize ADLC's future water conservation activities. NRDP considers the preferred alternative to develop the water metering and water system modeling distribution studies for a total cost of \$114,017 to be likely cost effective.

4. Environmental Impacts – No Adverse Impacts

These studies will have no adverse impacts to the environment. They will potentially benefit water conservation by improving water management and prioritizing future water projects.

⁶ ADLC's April 30, 2007, responses to NRDP comments.

5. Human Health and Safety Impacts – No Adverse Impacts

These studies do not present any adverse impacts to the human environment. The studies should have a beneficial effect on human health and safety by identifying critical improvements needed to the water system.

6. Results of Superfund Response Actions – Consistent

This project will not duplicate or interfere with results of a completed, planned or anticipated EPA Superfund response actions.

7. Recovery Period and Potential for Natural Recovery – No Effect

This replacement project will not affect the groundwater recovery period, which will not occur for thousands to tens of thousands of years.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The ADLC has provided sufficient information on the applicable requirements needed to complete these studies.

9. Resources of Special Interest to the Tribes and DOI – No Impact

The project involves studies that will not adversely impact these resources of special interest. Comment letters from the DOI and Tribes are contained in Appendix E. The DOI supports project funding. The Tribes voted in support of funding the project.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

This project area of these studies is located within the City of Anaconda, within the UCFRB and within and adjacent to the injured groundwater resource boundary.

11. Actual Restoration of Injured Resources – No Restoration

This is a replacement project; actual restoration of the injured portion of the Anaconda Area groundwater resource is infeasible as recognized in the State's *1995 Restoration Determination Plan*.⁷ The project constitutes replacement of lost services because it replaces drinking water lost in the area as a result of contamination.

12. Relationship between Service Loss and Service Restoration – Same

Remediation and restoration of the injured groundwater in the upper portion of the aquifer associated with the Anaconda Regional Water, Waste, and Soils Operable Unit is infeasible as recognized in the State's *1995 Restoration Determination Plan*. Use of much of the bedrock

⁷ *Restoration Determination Plan for the UCFRB*, prepared by the NRDP and Rocky Mountain Consultants, Inc. dated October 1995.

aquifer north and south of Anaconda is also not feasible due to contamination. Thus, ADLC has lost potential sources of water for future development and needs. Optimization and conservation of existing water resources from the current leaking water supply system is an effective means of enhancing its water resources. Thus, there is a direct connection between the potential services lost and the services this project will replace.

13. Public Support – 35 Support Comments

The NRDP received a total of 35 comments in support of the funding the metering and distribution modeling study project, including letters from the ADLC Council of Commissioners, the Anaconda Project Facilitators, Community Hospital of Anaconda, Deer Lodge County Head Start, United Methodist Church, six businesses and 24 residents.

14. Matching Funds and Cost Sharing – 5.5%

ADLC proposes in-kind services for administration, coordination, water system records retrieval for service line numbers/types and distribution system mapping for modeling inputs, hydrant flow tests for model calibration, and participation in public education forums.

Budget	Restoration Funds	Matching Funds	Percentage of Match	Total Budget
ADLC Budget	\$107,771	\$6,247	5.5%	\$114,018

15. Public Access – Not Applicable

Public access is not a component of this project, nor is it relevant to the project.

16. Ecosystem Considerations – Positive

The studies should lead to water conservation and reduced power requirements for pumping and treating water, which are broad ecosystem concepts that improve natural resources and should ensure that future projects are prioritized correctly.

17. Coordination and Integration – Coordinates/Integrates

The proposed studies coordinate well with other studies, such as MRWS rate study and the water system leak study funded by Restoration Funds and potentially coordinate with future water main replacement projects.

18. Normal Government Functions – Substantially Augments Normal Government Functions

Conducting the proposed studies, which will be an integral part of the management of Anaconda's water system, is a normal responsibility of local government and is typically funded by grants and ratepayers. Both studies are needed for ADLC to efficiently manage the water system.

ADLC offers several reasons as to why the proposed studies go beyond normal government function. They note that in the absence of the widespread groundwater contamination in the

Anaconda area that was the subject of Montana v. ARCO, ADLC could have less expensive options for managing its water supply. They also note that ADLC inherited a vastly substandard water system from the Anaconda Company's successors in 1991, with capitalization needs of over \$25 million, which amounts to about \$9,000 per user connection. The NRDP agrees that the ADLC faces replacement needs that are well beyond those typical of most other Montana communities. For this reason, and because communities typically rely on grants to assist in funding studies such as those proposed, the NRDP considers this proposal as one that augments, not replaces, normal government function.

For projects such as this proposal that augment normal government function, the *RPPC* contemplates cost-sharing by the applicant. ADLC offers to provide an in-kind match of \$6,247, or 5.5%. Due to this low match, the NRDP considers this proposal as one that substantially augments normal government function.

ADLC offers several reasons why they cannot contribute to a greater match at this time. ADLC still is in a serious cash deficient position due to lagging rate revenues and the need to reestablish inadvertently depleted bond reserves. To restore bond reserves and coverage on a 1992 issue, all Water Enterprise Fund cash currently available must necessarily be allocated to those reserves. To correct this shortfall in future years, ADLC is initiating a water rate study through MWRS in 2007. ADLC has also implemented a three-year, 12 percent per annum water rate increase beginning in 2006, but revenues to date are less than projected.

ADLC has not applied to the state's Treasure State Endowment Fund or Renewable Resource Grant and Loan programs which fund the type of studies proposed because ADLC does not currently meet these program's target rates for eligibility due to low cumulative water and sewer rates and because these programs effectively require water metering for competitive consideration and a match via additional local debt.⁸ The MRWS rate study may address this issue in the future. Also, the proposed metering study will hopefully lead to system-wide water metering that, along with the proposed increase in water rates; will make other grant programs more accessible.

⁸ The Montana Department of Commerce's target rate, which is based on user rate survey and community median household income, is an indicator of whether the applicant is contributing a reasonable amount towards state project financing. ADLC notes the combined water/sewer rate projected at \$36.76 in 2008 would be still be \$10.76 below the calculated target rate of \$47.39 per month for combined systems.

Butte-Silver Bow Local Government Drinking Water Infrastructure Replacement – Year Seven

Project Summary

Butte-Silver Bow City/County (B-SB) proposes to replace inadequate water distribution lines in the city of Butte. The proposal is to replace approximately 17,000 feet of waterline in 2008 at a cost of \$2,685,559, with \$2,417,003 requested in Restoration Funds and \$268,556 in matching funds.

Butte's bedrock aquifer is contaminated throughout a seven square mile area of the City and these distribution lines overlay that aquifer. This aquifer is so severely injured that natural recovery will not occur for thousands of years, as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water and its storage capacity and transport services have been lost for thousands of years. The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock groundwater injuries in Butte. Butte is asking for repair of inadequate distribution lines only in the area that has bedrock injury. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean bedrock groundwater in much of the City.

This proposal is Year 7 of an intended 15-year funding request to the NRDP by B-SB for waterline replacement. The Governor has approved funding for year 1 through year 6 totaling \$8,080,364 and about 66,800 feet of waterline has been replaced. If all 15 years of the plan are implemented, B-SB estimates the cost to the Restoration Fund to be about \$30 million, however there are indications that the costs could be higher. This evaluation does not address that long-term plan in depth and if B-SB seeks further funding beyond this year's proposal, it will need to do so through a separate application(s).

Stage 1 Criteria

Overall Application Quality: Good. The application is fairly well written and understandable and though it lacks some details in some areas, it is fairly complete.

1. Technical Feasibility – Reasonably Feasible

This evaluation involves determining to what degree the project employs well-known and accepted technologies and the likelihood it will achieve its goals. B-SB's identified primary goal is to replace 17,000 feet of old (early 1900's), leaking, and, in many cases, undersized water distribution mains within the City of Butte in the neighborhoods where the use of groundwater been lost (See map). The lines vary in size from 6 to 12 inches. Major project tasks include: 1) selecting a consulting engineer to oversee the project for the upcoming construction season; 2) confirming which water mains to replace; 3) producing designs for water main replacements and submitting the designs to DEQ for approval; 4) preparing and releasing bid packages for selection of a general contractor for the project; 5) implementing

water main construction and performing oversight; 6) preparing record drawings for work completed during the construction season; and 7) updating B-SB records and databases.

Depending on certain conditions, B-SB proposes to either competitively bid the construction of the project or perform the construction in-house using their personnel and equipment. B-SB successfully implemented four years of waterline replacement projects funded by the NRDP that were constructed by privately owned contractors and successfully procured a contractor for Year 6.¹ B-SB is currently constructing the Year 5 project and plans on completing it in the summer of 2007. The NRDP is in the process of tracking the costs for this in-house construction which is approximately 18% complete. Thus far, B-SB has demonstrated they can track the costs of their construction in a reasonable manner and successfully construct the project as designed. In addition, B-SB Department of Public Works, Water Utility Division, has extensive experience with the replacement of water mains in the community. Deteriorated conditions of the water distribution system led B-SB to create procedures for water main replacement when B-SB acquired the water system in 1992. As of December 2006, B-SB has replaced approximately 318,000 feet of transmission and system upgrades that exceeded \$50 million in costs.² B-SB has demonstrated that the proposal is reasonably feasible if they bid out the construction and oversee the project or if they elect to conduct the construction.

The primary logistical problems to deal with are: 1) the provision of temporary water to affected homes during the construction phase; and 2) traffic congestion and confusion due to street closures. The affected residences must be provided with an alternate source of water during the approximate two-week construction period. Standard construction procedures for water main replacement are being planned for this work and the project team has successfully conducted similar efforts since 1992 with minimal problems. Taking into account any inconvenience and annoyance to residents, B-SB has determined approximately 17,000 feet of water main replacement in the Butte Hill area as a reasonable quantity of lines for replacement per year.

In summary, the NRDP has a reasonable degree of confidence that technologies and implementation approaches proposed for water distribution main replacement can be achieved.

2. Relationship of Expected Costs to Expected Benefits – Commensurate Benefits

The proposed costs for implementing Year 7 of the waterline replacement is \$2,685,559, with \$2,417,003 (90%) requested in Restoration Funds and \$268,556 (10%) from B-SB. The Year 7 request is \$597,000 (33%) more than the Year 6 request. The matching funds percentage is 10%, which is less than the 25% for Year 6. The overall project cost is \$259,000 (11%) more than overall cost of the Year 6 project. B-SB states the increases are due to the increased costs in petroleum products. These increased costs of construction have

¹ The Year 6 project was bid out in February of 2007 and B-SB has received a low bid of \$1,910,180 which is about \$35,000 less than the engineer's estimate of \$1,976,697.

² The construction of the Year 5 project that was initiated in 2006 has not been completed, thus the application did not include any up-to-date costs of pipe placement.

increased NRDP proportionate cost, which means the project has a lower benefit:cost ratio than previous years' projects. The breakdown in total costs and the cost per lineal foot of pipe are detailed in Table 1.

Table 1

Cost Per Lineal Foot (lf)	Cost/lf
Construction Cost	\$135.27
Engineering Cost	\$ 20.29
Subtotal	\$155.56
B-SB Administrative Costs	\$ 2.42
Total	\$157.98

This project request is for the seventh year of an intended 15-year effort, which started in 2002 replacing water lines system-wide to address the long-term maintenance problems of the system. This 15-year effort, combined with improvements made by B-SB between 1992 and 2001 (independent of NRDP requests), would replace a total of 466,362 feet of waterline, which represents about 40% of the entire water distribution system and about 53% of the sections in most need of replacement. The project would achieve substantial progress toward getting the community's infrastructure needs met. B-SB is in the process of completing a master plan for the City of Butte. This plan could modify the total amount of waterline replacement that is needed.

The NRDP agrees with B-SB that this project represents an important step in replacing services lost due to injured groundwater resources. The State's 1995 Restoration Determination Plan³ affirmed upgrading Butte's antiquated water system as a viable replacement alternative for the injured bedrock aquifer. The proposal would replace water main that directly supplies water to 280 water users, but also would affect all approximately 12,400 residences and businesses in Butte due to increases in water pressure. The benefits to the Butte residents who lost the use of groundwater include the following:

- Reduced rate of leakage which will reduce pumping and treatment costs;
- Reduction in the potential for the distribution system becoming contaminated through leaking and failing pipes;
- Improved fire protection;
- Cost savings due to the reduction in the number of leaks per year that have to be repaired;
- Reduction in the potential for property damage and reduction in associated insurance claims from leaky pipes;
- Assurance of B-SB's continued provision of a reliable source of potable water to its residents meeting current federal and state regulations; and
- The opportunity to conserve more water during drought conditions as a result of reduced leakage.

³ *Restoration Determination Plan for the Upper Clark Fork River Basin*, NRDP, October 1995.

B-SB estimates about 3 million gallons per day (MGD) of treated water could be lost through leaking waterlines.⁴ Using the estimated cost to deliver treated water from the Big Hole of \$338.00 per million gallons, the cost of water leaks translates to \$1,014.00 per day or \$370,241 per year. The equivalent annual cost⁵ of this project is \$99,005 and, when compared to the cost savings of \$370,241 per year, the project savings would exceed the annual cost by over 3½ to one.⁶ Though many assumptions were made in the B-SB calculation and they cannot precisely quantify the benefit, the fact that B-SB repaired about 282 leaks in their water system in the past year, which is far more than other city water system of similar size, is a good indication that their waterline system needs to be addressed. The Water Master Plan that was approved for NRDP funding in 2005 will provide a water-balance and a better picture of the leakage in the system.

In addition to water savings benefit, another benefit from the waterline replacement is the reduced number of leaks and associated repair costs. B-SB indicates that there were 282 leaks repaired in 2006 at an estimated cost of \$1,000 per leak, which translates to \$282,000 per year to repair leaks. The NRDP funded waterline replacement for the Year 1 through 4 projects of 107,464 feet, combined with B-SB funded waterline replacements, has resulted in B-SB's ability to reduce the number of leak crews from two to one. If the water loss is considered equal across the entire 558,682 feet of waterline in the system that has been identified as needing replacement, then 17,000 feet of waterline replacement would theoretically save 3% of the water loss per year.

This proposal will benefit and compensate a large public for some of the lost use of groundwater that Butte has suffered due to the inability to use bedrock groundwater in much of the City. Given the lower cost:benefit ratio than previous years' projects, the NRDP believes the benefits gained from this replacement proposal are commensurate with the costs. If the project construction costs are significantly lower than estimated, the project could be judged as having net benefits.

3. Cost-Effectiveness – Likely Cost-Effective

B-SB considers the proposed project the most economical alternative to replace lost services from injured groundwater resources. They considered several alternatives to address the problems associated with the water distribution system. B-SB indicates the no action alternative would eliminate one of the few viable means to replace the lost services that groundwater provides. The no action alternative does not accomplish the goals of the project and is therefore not considered a viable option.

⁴ This calculation is based on data indicated that 6 to 6.4 MDG enter the water delivery system but only 3 to 3.2 MGD exits the system at the Metro wastewater treatment plant.

⁵ Equivalent annual cost is the annual cost of the owning an asset over its entire life.

⁶ The NRDP did not give any weight to the other method offered by B-SB to quantifying benefits. This method was based on estimating costs associated with the number of leaks and how much can be anticipated as lost due to leaks if they were neglected, because the estimated leakage would have exceeded the average flow into Butte during winter months. This would mean that B-SB would not have water pressure to at least a portion of the service area during the winter months, which does not happen.

If alternatives such as replacing the leaking waterline with groundwater of acceptable quality were available from wells, the cost of operating and maintaining the water system would be significantly less. Under current state and federal regulations, most groundwater supplies require little or no treatment other than disinfection with chlorine or ultraviolet light. Groundwater systems typically do not have to be manned on a full-time basis. This alternative is not available, due to the extensive groundwater contamination underlying Butte.

The proposal offers the alternative to bid out the project or to perform the construction in-house in the same manner as the Year 5 project, which is currently under construction. B-SB offers the following four trigger situations for conducting the work in-house, but also indicates there may be other trigger situations:

1. If the contractor's performance has been proven to be less than adequate. For example, refusal to comply with OSHA regulations or if the engineering firm deems that the quality of work is unsatisfactory. This will be cause for contract dismissal.
2. If the bid amount exceeds the approved NRD grant amount.
3. If unforeseen budget constraints or an extreme emergency occurs that doesn't allow for adequate funding.
4. If the outcome of the 2006-2007 (Year 5) construction analysis shows a substantial savings. B-SB is in the process of analyzing the cost of B-SB's construction crews performing the work in-house.

B-SB provides for NRDP approval before implementation with in-house crews. The NRDP believes there are too many unknowns associated with the 1st and 3rd triggers and the unspecified other triggers to know whether they would be valid reasons for the use of in-house crews but that the 2nd and 4th triggers offer acceptable reasons for doing the construction in-house. The 2nd trigger was an option allowed for the Year 5 project. It is considered a cost-effective alternative because it would allow the project to be conducted by a qualified workforce at a cost within the available budget and lower than the price offered through competitive procurement. Under the 4th trigger, if the use of in-house crews on the Year 5 project can be shown to offer cost savings compared to the engineer's estimate, which was independently validated by the NRDP's review engineer,⁷ then justification of their use for the Year 7 project without the need for competitive bidding could be demonstrated. Without the demonstrated cost savings, then the use of in-house crews is questionable. Currently, indications are favorable that there will likely be a significant cost savings by B-SB conducting construction in-house. Though only 18% of the Year 5 project is complete, there has been a 37% cost savings compared to the engineer's estimate.⁸ If final results are similar to these preliminary results, use of in-house crews would appear to be the most cost-effective approach and thus the approach NRDP would recommend be implemented. The NRDP analysis of B-SB's in-house construction should be completed in the fall of 2007. In conclusion, the NRDP believes that the following alternatives are cost-effective approaches

⁷ Gary Sturm of Tetra Tech EM Inc., application review for NRDP, April 11, 2007.

⁸ NRDP has Gary Sturm of Tetra Tech, EMI under contract and Gary, together with NRDP staff, will complete an analysis of the cost-effectiveness of the B-SB construction upon completion of the Year 5 project.

to implementing the project, with the understanding that B-SB will seek NRDP approval of the chosen option as offered in the application.

1. B-SB competitively bids the project and awards the contract to the lowest responsive, responsible bidder. The 2006 project is being implemented in this manner, which B-SB has indicated is their preferred approach.⁹
2. B-SB conducts the work in-house after a competitive bidding process resulted in all bids exceeding the estimated costs of the project. This is how the 2005 project is being implemented.
3. B-SB conducts the work in-house without bidding it competitively, based on data from the 2005 project that indicates cost savings can be achieved with in-house construction.

Another alternative considered by B-SB is to place meters on the individual users of the water distribution system. B-SB states that this alternative is not cost-effective since the majority of the water lost is through leakage and not through misuse or waste; however, B-SB does not supply any verifiable figures to support their claim. In addition, the mode in which water leaves the system is not relevant as far as water conservation is concerned. Complete metering of the system would allow an accurate way to quantify use as well as loss due to leakage and would also promote conservation.

The NRDP analyzed the possible water savings and cost of metering Butte water users using data from other cities that indicate 20% to 50% water savings can be realized when system-wide metering is implemented.¹⁰ The NRDP compared the cost to meter the entire system versus the percent water savings. B-SB has stated that 43% or 5,348 of the 12,438 water users are metered, leaving 57% or 7,090 water users unmetered. The cost of implementation was estimated at \$1,100 per installation, therefore the cost to fully meter Butte could be approximately \$7.8 million.¹¹ Using the estimated 3% water savings that will result from this \$2.7 million replacement proposal, proportionately, a \$7.8 million investment in replacement would achieve 9% water savings. This percentage is much less than the estimated water savings of 20% to 50% that metering could provide for the \$7.8 million investment. While this calculation is based on metering data from other cities and may not be completely accurate for Butte, it indicates metering could be a more cost-effective alternative than waterline replacement at this time, based strictly on water saving benefits.

The percentage of water conserved from leak repair or from metering does not, however, directly translate to the percentage of overall water system cost savings. This is because

⁹ Based on statements made by Jon Sesso of B-SB at the August 14, 2007 Advisory Council meeting and Paul Babb of B-SB at the August 16, 2007 TRC meeting.

¹⁰ Anaconda-Deer Lodge County (ADLC) Water Metering and Distribution System Modeling Studies, March 2007, page 5.

¹¹ Anaconda-Deer Lodge County (ADLC) Water Metering and Distribution System Modeling Studies, March 2007, Page 5 & ADLC response to NRDP comments April 30, 2007.

some operational costs, such as personnel, are not necessarily less if water is conserved.¹² This is because the cost to operate the water supply system is likely to be over half of the total cost of delivering water.¹³ Also, replacement of waterlines offers other benefits that metering would not, such as reducing expenses associated with leak repairs and road hazards.

The B-SB Water Master Plan, which should be completed this fall, will investigate system-wide metering further and should determine the most cost-effective alternative for future water conservation activities in Butte. When this plan is complete, it may be shown that metering is a more cost-effective way to conserve water resources and replace some of the lost groundwater resource services.

In summary, while a thorough alternatives analysis was not provided, partly because B-SB's master plan update is not completed, this proposal is likely a cost-effective alternative to addressing problems with the water distribution system and meeting B-SB's specific goal of replacing deteriorated and undersized water mains. A more definitive analysis that will hopefully be accomplished through the master plan effort is needed to determine whether replacing waterlines is the most economical alternative to replacing all of the lost services as B-SB maintains.

4. Environmental Impacts – No Significant Adverse Impacts

Replacing Butte's water mains presents no significant adverse impacts to the environment. The project will have potentially adverse impacts to aesthetics from the short-term excavation within the city streets for the installation of the mains. This impact will be mitigated, to the extent possible, by limiting public access to the disturbed areas. Actual construction activity will last about two weeks for each renewal segment. The project will have a potentially beneficial impact on conservation of water by reducing the total water from leaking pipes.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

Potentially adverse impacts to the human environment during construction activities include worker accidents, dust, noise, temporary loss of water service, restricted access to commercial facilities and disruption of traffic flow. The applicant has planned effective mitigation measures to alleviate these adverse impacts to the greatest extent possible, such as limiting construction to daytime hours. B-SB will follow safety guidelines of the Montana Public Works and Standard Specifications.

In addition to bringing clean water to residences, replacing water mains will also benefit the community by reducing impacts on human health and safety that are caused by water leaks. These include road hazards from leaking water and ice, health hazards due to possible

¹² For example, if metering could reduce water use by 24%, the pumping and treating costs would likely reduce by the same amount, but the personnel cost would likely be the same, which would result in only about half that cost savings or 12%.

¹³ Based on a phone conversation between Alden Beard, BETA Engineering, and Tom Mostad, NRDP, June 4, 2007.

contamination of the water system via leaks, and safety hazards caused by inadequate pressure and flow for fire fighting purposes.

6. Results of Superfund Response Actions – Consistent

The 1994 Record of Decision¹⁴ for the Butte Mine Flooding Operable Unit declared that the bedrock aquifer and parts of the alluvial aquifer on the Butte Hill could never be used for drinking water. B-SB has adequately planned to replace water lines in areas where impacts from mine flooding decisions are applicable. This is consistent with remedy in that contaminated bedrock groundwater cannot be accessed for residential use.

7. Recovery Period and Potential for Natural Recovery – No Effect on Recovery Period

This replacement project will not affect the bedrock aquifer's recovery period, which will not occur for thousands of years.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The applicant has provided sufficient information on the applicable requirements needed to complete this project. The following three standard procedures will be implemented:

- B-SB will submit all design drawings for water main segment replacements to DEQ for review and approval prior to performing the work.
- B-SB will coordinate all waterline replacement activities with the U.S. EPA to ensure any excavated materials that contain heavy metals in excess of remedial action levels are disposed at the mine waste repository and clean back fill materials are used.
- B-SB will follow Montana Public Works Specifications in the implementation of the project, including those for ditch width, pipe bury depths, safety measures, and related specifications.

9. Resources of Special Interest to the Tribes and DOI – No Impact

This project will not impact natural resources of special concern to these entities. Even though work will occur on already constructed and paved streets, this project could have an impact on buried cultural features if they are present below the ground surface. Since most of the project work will occur in areas that have been disturbed previously, the possibility is remote that these sites would be encountered intact.

Comment letters from the DOI and Tribes are contained in Appendix E. The DOI does not object to funding this project. The Tribes voted in support of funding this project. As indicated in their comment letter, the Tribes consider the Butte, Anaconda, and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites.

¹⁴ *Record of Decision, Butte Mine Flooding Operable Unit*, U.S. Environmental Protection Agency, September 1994.

The Tribes thus encourage the applicant to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. If funded, the project grant agreement would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

The project will be conducted above the injured Butte Hill bedrock aquifer area.

11. Actual Restoration of Injured Resources – No Restoration

This is a replacement project; actual restoration of the bedrock aquifer is infeasible. The State recognized this infeasibility in its 1995 *Restoration Determination Plan*¹⁵ that selected a replacement alternative for this groundwater injury.

12. Relationship between Service Loss and Service Restoration – Same

Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water and its storage capacity and transport services have been lost for thousands of years. This proposal constitutes replacement of lost services to thousands of property owners and other members of the public in Butte that could utilize the aquifer if it was not injured. By fixing leaking and corroded water lines, this proposal will enhance the water supply from an unaffected source. Thus, there is a direct connection between lost services and services this project will replace.

13. Public Support – 8 Support Comments

The NRDP received support comments on this project from the B-SB Council of Commissioners, Port of Montana, B-SB Director of Fire Services, Project Green of Montana, Inc., Butte Development Corporation, B-SB Chief Executive, B-SB Water Treatment Manager, and B-SB Tax Increment Financing Industrial Districts.

14. Matching Funds and Cost Sharing – 10%

Restoration Fund Request Year 7:	\$2,417,003 (90%)
B-SB cash match:	\$ 227,484 (8%)
B-SB in-kind match:	<u>\$ 41,072 (2%)</u>
Total Project Costs:	\$2,685,559

The proposal offers matching funds of \$268,556, which is 10% of the total project. This is a \$338,000 (56%) overall decrease in matching funds from the Year 6 project, which offered

¹⁵ *Restoration Determination Plan for the UCFRB*, prepared by the NRDP and Rocky Mountain Consultants, Inc., dated October 1995.

\$606,527 (25%) in matching funds, even though the project overall increased in cost by about \$259,000 (11%) from Year 6. B-SB has stated that, due to the increased costs of operation, maintenance and capital improvements, they are currently using restricted funds to offset deficits in revenue. In FY 2005-2006 B-SB's actual expenses exceeded revenue by about \$848,000, which may result in a rate increase in the future.¹⁶ The forthcoming master plan will address this potential rate increase.

Though not considered a cost share for this specific project request, B-SB has noted the \$47 million dollars already invested by Butte municipal drinking water system ratepayers over the past 12 years.

15. Public Access – Not applicable

Public access is not a component of this project, nor is it relevant to the project.

16. Ecosystem Considerations – Positive

The project will conserve water and therefore reduce power requirements for pumping and treating water.

17. Coordination and Integration – Coordinates

Coordination of this project is done with other waterline replacement projects in the Butte area.

18. Normal Government Functions – Within but Augments Normal Government Functions

Upgrading municipal drinking water lines is a normal responsibility of local governments that is typically accomplished via funding from grants and ratepayers. For projects like this one that augment normal government function, the *RPPC* contemplates cost sharing by the applicant.

The costs B-SB faces to upgrade their system are greater than typical community costs due, in part, to pervasive groundwater contamination underlying Butte. In the absence of that injury, Butte may have been able to construct a simpler and less expensive nearby groundwater system than the existing system that relies on more distant uncontaminated surface water sources, as further documented in the State's 1995 NRD assessment report.¹⁷ While B-SB water rates¹⁸ are somewhat higher than some other similar communities, B-SB does not currently meet the target rates for eligibility for grants funds, such as the Treasure State Endowment Fund and Renewable Resource Grant and Loan programs because B-SB's

¹⁶ B-SB Big Hole Transmission Pipeline Replacement Restoration Grant Application, March 2007, page 62.

¹⁷ *Revised Report and Rebuttal: Assessment of Damages to Groundwater and Literature Review of Water Use Values in the Upper Clark Fork River Drainage*, Duffield, October, 1995. Note: this report estimates lost use values for Butte's bedrock and alluvial aquifers.

¹⁸ B-SB Application; average flat rate is \$46.58, average monthly metered rate \$32.23, page 63.

combined water and sewer rates are lower than the target rate for combined systems.¹⁹ This target rate, which is based on user rate survey and community median household income, is an indicator of whether the applicant is contributing a reasonable amount towards state project financing. In addition, currently only 43% of B-SB water users are metered. B-SB indicates it will evaluate the necessity of a rate increase in order to maintain the current level of system improvements in the forthcoming Water Master Plan, which is to be completed this fall. This plan will also evaluate system-wide metering.

Another consideration of this criterion is that B-SB seeks to address the water main leak problems over a 15-year period to bring annual maintenance costs in line with other similar utility systems. Over the 15 years, NRDP funding would result in the replacement of about 30%, which is 255,000 feet, of the total 877,500 feet of pipeline that needs to be replaced. After that, B-SB will be closer to reaching a routine maintenance schedule.²⁰

A final consideration of this criterion is the amount of cost-sharing provided by B-SB. B-SB proposes a 10% match for this proposal; the match for previous years ranged between 25 to 32%. While this is a lower match than in previous years, given the other factors considered in this criterion, particularly that Restoration Funds are being used for 30% of the needed replacement, the NRDP believes this project is one that acceptably augments normal government function, not replaces it.

¹⁹ B-SB's combined target rate is \$53.81 and B-SB's actual combined metered rate is \$45.73 as per http://comdev.mt.gov/Census_Results.asp and John Van Daveer, B-SB phone conversation with Tom Mostad NRDP, May 24, 2007.

²⁰ Per B-SB's application, an accepted rule-of-thumb for utility is to replace one percent of system each year. Given it's age, the B-SB water distribution system should be about 80% replaced by 2017, based on the anticipated 15 years of replacements funded by NRDP and other replacements funded by B-SB.

Anaconda-Deer Lodge County East Sixth and East Seventh Street Water Main Replacements

Project Summary

Anaconda-Deer Lodge City County (ADLC) proposes to replace 4,960 feet of leaking, century old waterlines in East Sixth and East Seventh streets in the City of Anaconda. This proposal is a replacement project that will conserve water for the City of Anaconda by the installation of a new water main in place of a leaking water system. As proposed, the total proposal costs are \$1,314,488, with \$75,156 in matching funds and \$1,239,332 requested in Restoration Funds.

Anaconda is located adjacent or partially within the 40 square miles of groundwater contamination associated with the Anaconda Regional Water, Waste, and Soils Operable Unit. Groundwater resources are somewhat limited because the upper portion of the alluvial groundwater aquifer east of Anaconda is contaminated with metals associated with past mining activities at levels above water quality standards. The 1995 State of Montana Anaconda Groundwater Injury Assessment Report supports this claim of groundwater contamination east of Anaconda. Also, the 1998 Anaconda Regional Water, Waste, and Soils Operable Unit Record of Decision indicates about 30 square miles of contaminated bedrock groundwater to the north and south of the City.

Currently, Anaconda's water system is losing an estimated 1.3 million gallons of water per day, via leaking waterlines, which could be reduced by 130,000 gallons per day if this proposal is implemented. Repairing these leaks is an alternative that will provide the city with additional water resources instead of developing a new source of water.

This request is the sixth year of what ADLC has indicated will be a multi-year funding request to replace the waterline system, with \$5,983,674 in Restoration Funds approved for 32,600 feet of waterline replacement. ADLC estimates that over 50,000 feet of waterline still remains to be addressed in future projects, which is likely to cost over \$10 million.¹ ADLC has not indicated what portion of those costs would be sought in Restoration Funds. The 2006 application updated the system-wide meter installation that was to occur over a two-year period beginning in 2007, but it has been rescheduled to a single-year implementation in 2009.

This request was originally a part of the 2005 Restoration grant application which involved 11,800 feet of water main replacement on Seventh, East Sixth and East Eighth streets. Because ADLC had matching fund shortage and under-estimated the cost of the 2005 project, they only completed 61% of what was originally planned.² The remainder of the uncompleted portion of the 2005 project (Schedule II) is to be completed under this proposal, though ADLC has reduced the matching fund percentage and updated its cost estimate from the 2005 grant.

¹ The 2004 Preliminary Engineering Report (PER) for Anaconda's Municipal Water System (prepared for ADLC by HKM Engineering, of Butte, August 2004) indicates rehabilitation of the distribution system would cost \$12.3 million. \$10 million is an approximation of the cost of the work that has been completed since the report date.

² Schedule I of the 7th, East 6th, & East 8th final expended budget was \$1,212,026 of \$1,989,200 that was originally budgeted and the remainder of the funds (\$777,174) were not spent.

Overall Application Quality: Good. ADLC's application was fairly well written and complete however, it did not supply all the needed information to support their preferred alternative and offered some flawed analysis on matching funds.

Stage 1 Criteria

1. Technical Feasibility – Reasonably Feasible

This proposal involves the replacement of approximately 4,960 feet of dilapidated waterline along East Seventh and East Sixth streets in Anaconda (see Figure 7 on page 35). This water main replacement proposal will be completed after the East Third and South Birch Streets water main replacement project, which was funded in 2006 and will be completed in the summer of 2007. Major project tasks include producing final designs and specifications, preparing and competitively releasing a construction bid package from the draft documents that were completed for the 2005 project, and implementing water main construction and oversight. ADLC has already procured an engineering firm to produce the design documents, though does not have a specific task order with the firm yet.

The current waterline is Kalimane pipe that is over 100 years old and this proposal is the next priority as identified in the 2004 PER. ADLC proposes to manage and be responsible for the design, project bidding and contracting, construction oversight, and waterline maintenance. Restoration Funds will be used for installation of the new waterline, connection to existing water service, and construction oversight.

When ADLC completes the East Third and South Birch project scheduled for 2007, they will have completed 67,000 feet of waterline replacement over the past two decades, including waterlines along Commercial and Park Avenue, Main Street, Fourth Street, Eighth Street, and the West half of Sixth and Seventh Streets. In addition, they have completed a waterline to the Warms Springs Campus, constructed a new well field and water storage tank, and contracted for engineering services for the design and planning of these projects. The same level of effort and approach is proposed by ADLC for this proposal. ADLC has invested \$9 million in its water system since 1992.

The NRDP has a reasonable degree of confidence that the technologies proposed to complete this project can be achieved and project goals can be met. Standard design and construction techniques that conform to the Montana Public Works Standards Specifications for Construction and the Department of Environmental Quality (DEQ) specifications will be used for this waterline replacement proposal.

2. Relationship of Expected Costs to Expected Benefits – Commensurate Benefits

ADLC estimated the proposal budget to be \$1,314,488, with \$1,239,332 (94.3%) in Restoration Funds and proposed \$75,156 (5.7%) to be provided by ADLC in in-kind matching funds. The NRDP has reduced the allowable matching fund amount to \$17,956 (1.4% of the total budget) and, as a result, reduced the overall budget to \$1,257,288. The Restoration Funding request does not change, but the percentage of the proposal that is funded by Restoration Funds is increased to 98.6%. The reason for the matching fund reduction is explained in the matching funds criterion of this evaluation. The breakdown in total cost per lineal foot of pipe, as modified by the NRDP, is detailed in Table 1.

Table 1

Cost Category	Cost/lf
Construction Cost	\$221.26
Engineering Cost	\$ 27.66
Subtotal	\$248.92
Admin. & Misc. Cost	\$ 4.56
Total	\$253.49

The leaking waterlines in Anaconda lose approximately 1.3 million gallons of water per day.³ This leakage assessment was completed during winter months to eliminate uses such as yard watering that would normally not be treated at the wastewater treatment plant. The 2004 PER concluded that the best alternative to develop a water supply would be to conserve the water already being treated and piped out through the water distribution system. Based on the 2004 PER's estimated average leakage of the remaining system of 26.2 gallons/day per lineal feet of pipe, this proposal could reduce water loss from the entire system by up to approximately 130,000 gallons/day. Using ADLC's estimated production/delivery cost of \$1.07 per thousand gallons, a water savings of 130,000 gallons/day would result in about \$50,772 in annual benefits, which is comparable to the equivalent annual cost of \$50,400.⁴

Conservation of the leaking water derived from this proposal will be a direct benefit to the City of Anaconda by reducing the need to seek additional water supplies and lowering water distribution costs since water pumped from the wells will not be lost through leaking pipes. The proposal would replace water main that directly supplies water to 106 water users, but also would affect all approximately 3,000 residences and businesses in Anaconda due to increases in water pressure. In addition, other benefits include:

- Increased water pressure for fire protection and users;
- Cost savings associated with reduction in repairs;
- Reduction in potential for property damage and in associated insurance claims for leaky pipes; and
- Opportunity to conserve more water during drought conditions as a result of reduced leakage.

This proposal is the continuation of the 2005 project, constructed in 2006, which was originally planned to replace 11,800 feet of water main on Seventh, East Sixth and East Eighth streets. However, due to the lack of matching funds, the 2005 project was cut short and only replaced a total of 7,200 feet (61%) of water main, leaving 4,600 feet (39%) uncompleted. This year's proposal is for the unfinished portion of the 2005 project, plus 360 feet of additional of water main replacement for a total of 4,960 feet. The addition of 360 feet of water main is an increase of 8% of water main above what was remaining in 2005 project. However, this year's budget proposal is a 73% increase in requested Restoration Funds and a 57% increase above the total remaining 2005 budget as shown in Table 2.

³ This is calculated from the August 2004 PER as the estimated amount of leakage remaining after the completion of the 2007 construction of East Third and South Birch.

⁴ ADLC calculated this annual cost based on a total project cost of \$1.23 million, a 100-year project life span and an interest rate of 4.0%.

Table 2

Project	NRDP Budget	ADLC Match	Percent Match	Total
Remainder of 2005 ADLC Project	\$712,603	\$89,570	11.2%	\$802,173
2007 ADLC Proposal	\$1,239,332	\$17,956*	1.4%*	\$1,257,288*
Difference between 2007 & 2005	\$526,729	-\$65,614	-9.8%	\$461,115

*Modified by NRDP, see matching fund criterion of this evaluation for more information.

Other comparable waterline projects have seen an increase in overall budget of approximately 29% over the past two years, though they have not realized the anticipated 57% increase that is proposed.⁵ When comparing similar items in the 2005 project to the 2007 engineer's estimate, there are some items that are significantly higher priced. For example, the price for 8-inch water main installation, which was \$33.50/lineal foot in 2005, is \$60/lineal foot in the proposed 2007 engineer's estimate. Even though costs for raw materials have increased over the past few years, these comparisons indicate that some proposal costs may be over-estimated. However, since Restoration grant payments are on a reimbursement basis, only actual costs will be paid. Nonetheless, the increased budget for construction has decreased the cost:benefit ratio of the project since it was originally approved in 2005 and over last year's project.

Two additional factors have lead to a reduced cost:benefit relationship compared to the 2005 proposal. The increased cost of this proposal is also because the 2005 project was split into phases, Schedule I and Schedule II. The Schedule I final report states that additional engineering and grant administration costs of \$23,783 resulted from the delayed decision to separate the project into two schedules and the late cancellation the second phase, since some engineering originally near completion will have to be redone for this phase.⁶ Finally, the amount of allowable matching funds for this year's proposal is 1.4% (\$17,956), which is a 9.8% (\$89,570) reduction in matching funds that were proposed for the 2005 project.

In any case, Restoration Funds are still needed to help defer costs of replacing waterlines and to conserve water and this proposal offers substantial benefits to the Anaconda public. Thus, the NRDP believes the benefits gained from this proposal are commensurate with its costs. If this proposal had more substantial matching funds and costs nearer to those originally proposed in 2005, the NRDP would have considered it as one of net benefit.

3. Cost-Effectiveness – Likely Cost-Effective

This criterion considers whether the proposal accomplishes its goals the least costly way possible. ADLC's stated primary goal is to significantly reduce water leakage in Anaconda's piping system, with a related goal of extending the existing water supply in the most cost-effective manner, as established by the 2004 PER.

⁵ B-SB increased their overall budget 18% from 2005 to 2006 and 11% from 2006 to 2007 for a total of 29%; ALDC has modified the application via a May 17, 2007 email from Alden Beard (BETA) to note there is a 39% increase in construction cost from the 2005 project (page 31).

⁶ *Final Report For UCFRB Restoration Grant Fund Project, Schedule I, by ADLC, February 9, 2007.*

The proposal involves replacing 4,960 feet of waterline for a total cost of \$1,257,288, as modified by the NRDP. The 2007 cost estimate for the 2005 Schedule II work that was not completed used bids from the 2006 waterline projects, preliminary draft design plans for this proposed project, and ADLC's consulting engineer's knowledge and experience. ADLC's engineer made some necessary adjustments to account for individual bid item pricing. The NRDP believes the use of this approach to estimate costs is appropriate and has been accurate in the past, but costs may be somewhat over estimated for this proposal as discussed in the cost:benefit section of this evaluation.

The application uses the alternative analyses from the 2004 PER to compare seven methods for enhancing water supply. Rehabilitation of the existing distribution system scored the highest, compared to installing meters (second highest priority), adding additional water wells or developing the Hearst Lake/Fifer Gulch Surface Water Source. In addition, the application compares two other construction methods that could be used to complete this proposal compared to conventional water main replacement. ADLC evaluated using trenchless technology and installing a new waterline in a different corridor. As presented in the application, neither of the alternative methods of installation was as cost-effective as standard waterline installation within the existing waterline corridor.

ADLC has water development limitations because of the groundwater contamination associated with the Anaconda Water, Waste, and Soils Operable Unit and the restrictions on installation of new well fields in some areas inside and outside the contamination area. The groundwater contamination east of Anaconda in the upper portion of the aquifer has limited, to some degree, the number of sources for Anaconda's additional water resources. Conservation of the existing water supply is an efficient and effective alternative to increase the supply of water to current and future users. Development of additional water resources and reserves would utilize the existing water distribution system, resulting in continued losses of treated water. ADLC does hold the water rights to Hearst Lake/Fifer Gulch (7.63 cubic feet per second), although ADLC indicates a new pipeline and treatment system would be required to integrate this water into the current system at a cost of approximately \$1.7 million. Additional wells at the current well field may not be possible, due to an agreement between ADLC and the West Valley Water Users. This agreement was negotiated to protect the water rights of the West Valley Water Users.

Metering water use is another mechanism to conserve water. Montana Rural Water Systems (MRWS), of which ADLC is a member, has agreed to conduct a water rate study, which will begin this year. ADLC has also applied for Restoration Funds, under a separate grant, to conduct a water metering study and a distribution modeling study that are proposed to lead to better understanding of the problems with the system and to water conservation. The 2004 PER concludes that, along with waterline replacement, water metering is the best way to reduce water loss from the current water system. The report indicates that 7% of the connections within Anaconda are metered. An ordinance passed in February 2004 requires metering for all new connections and ADLC proposes to install system-wide water metering by 2009.⁷ The 2004 PER estimated a system-wide metering cost of \$2.1 million.⁸ Updated

⁷ The 2006 application indicated the system-wide meter installation was to occur over a two-year period beginning in 2007, but it has been rescheduled to a single-year implementation in 2009.

⁸ ADLC *Water Metering & Distribution System Modeling Studies, Restoration Grant Application*, March 2007, page 8.

costs for this are not available, but would likely exceed the initial estimate and may be up to \$3 million as proposed by ADLC.⁹

However, if system-wide metering could successfully reduce the water use in Anaconda by up to 50%, as offered by ADLC in their 2007 metering grant application, installation of meters should be the preferred alternative based strictly on the water savings. This proposal estimates that it will reduce leaking in the system by 10% for an estimated to cost \$1.3 million. When this cost:benefit is proportionally compared to system-wide metering at an estimated cost of \$3.0 million, the metering would only need to reduce water usage by 24% to equal the cost:benefit of this proposal. Therefore, using ADLC's estimates, if it were shown that metering could save more than 24% or the proposal was shown to save less than 10% of the leaking water, then metering should provide a better cost:benefit ratio than the proposed alternative.

The percentage of water conserved from leak repair or from metering does not, however, directly translate to the percentage of overall water system cost savings. This is because some operational costs, such as personnel, are not necessarily less if water is conserved.¹⁰ This is because the cost to operate the water supply system is likely to be over half of the total cost of delivering water.¹¹ Also, replacement of waterlines offers other benefits that metering would not, such as reducing expenses associated with leak repairs and road hazards.

Nonetheless, neither the water main replacement scenario nor metering scenario can be shown to have a quantifiable amount of water savings or cost savings at this time, which adds to the uncertainty of both alternatives. To address this issue, a water study funded by NRDP and scheduled to take place in early 2008, will better quantify the water loss due to leakage. After this study, and possibly other ADLC proposed studies, future alternatives analysis should be able to be based on better information and a more definitive selection of alternatives can be made. Given ADLC's stated primary goal of reducing water leaking, the NRDP determined that, based on the current available information and despite the uncertainties, the proposed water main replacement alternative is likely cost-effective.

4. Environmental Impacts – No Significant Adverse Impacts

This proposal presents no significant adverse impacts to the environment. It will have potentially adverse impacts to aesthetics from the short-term excavation during the installation of the new waterline. ADLC will use erosion control to protect stormwater runoff and indicates that, if required, the contractors will obtain a construction site stormwater management permit from DEQ. The proposal will potentially benefit water conservation by reducing leaks.

⁹ ADLC's responses to NRDP questions regarding the 2007 grant application, April 30, 2007.

¹⁰ For example, if metering could reduce water use by 24% the pumping and treating costs would likely reduce by the same amount, but the personnel cost would likely be the same, which would result in only about half that cost savings or 12%.

¹¹ Based on a phone conversation between Alden Beard, BETA Engineering, and Tom Mostad, NRDP, June 4, 2007.

5. Human Health and Safety Impacts – No Significant Adverse Impacts

Potentially adverse impacts to the human environment during construction activities include dust, noise, temporary loss of water service, restricted access to commercial facilities, worker safety, and disruption of traffic flow. The ADLC has proposed mitigation measures to alleviate these adverse impacts to the greatest extent possible. Temporary waterlines and construction site safety measures are proposed. Bringing clean water to residences and businesses by replacement of water mains will also benefit the community by reducing impacts on human health and safety due to enhanced reliability of the water service and distribution, by reducing road hazards associated with leakage, and by increasing availability of water otherwise lost to leakage. In addition to bringing clean water to the City of Anaconda, the services will also improve fire protection pressure and flows. ADLC indicates that standard OSHA and Montana Public Work Standards for work place safety practices will be followed during the completion of this proposal to insure worker and public health and safety.

6. Results of Superfund Response Actions – Consistent

This proposal is consistent with remedy in that contaminated groundwater is not being accessed for use. The proposal will not conflict or coordinate with any known EPA Superfund actions.

7. Recovery Period and Potential for Natural Recovery – No Effect on the Recovery Period

This replacement proposal will not affect the groundwater recovery period, which will not occur for thousands to tens of thousands of years.

8. Applicable Policies, Rules and Laws – Consistent/Sufficient Information Provided

The ADLC has provided sufficient information on the applicable requirements needed to complete this project. The following standard procedures will be implemented:

- ADLC will submit all design drawings for water main replacement to DEQ for review and approval prior to performing the work.
- ADLC will coordinate with DEQ to ensure that contamination from other potential sources will be investigated prior to construction.
- ADLC will follow Montana Public Works Specifications in the implementation of the proposals, including those for ditch width, pipe burial depths, safety measures, and related specifications.

9. Resources of Special Interest to the Tribes and DOI – No Impact

It is not anticipated this proposal will have any impacts on natural resources related to the Tribes or DOI. ADLC plans to consult with the appropriate entities if cultural or historical resources are discovered during project implementation.

Comment letters from the DOI and Tribes are contained in Appendix E. The DOI does not object to funding this project. The Tribes did not vote in support of funding this project due to funding cap and cost-effectiveness considerations. As indicated in their comment letter, the Tribes consider the Butte, Anaconda, and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites. The Tribes thus encourage the applicant to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. If funded, the project grant agreement would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes.

Stage 2 Criteria

10. Project Location – Within Basin and Proximate

This proposal is located within the City of Anaconda, within the UCFRB and within and adjacent to the injured groundwater resource boundary.

11. Actual Restoration of Injured Resources – No Restoration

This is a replacement proposal; actual restoration of the injured portion of the Anaconda Area groundwater resource is infeasible as recognized in the State's 1995 Restoration Determination Plan. The proposal constitutes replacement of lost services because it replaces drinking water lost in the area as a result of contamination.

12. Relationship between Service Loss and Service Restoration – Same

Remediation and restoration of the injured groundwater in the upper portion of the aquifer associated with the Anaconda Regional Water, Waste, and Soils Operable Unit is infeasible, as recognized in the State's 1995 Restoration Determination Plan. Use of much of the bedrock aquifer north and south of Anaconda is also infeasible due to contamination. Thus, ADLC has lost potential sources of water for future development and needs. Optimization and conservation of existing water resources from the current leaking water supply system (approximately 1.3 million gallons per day) is an effective means of enhancing its water resources. Thus, there is a direct connection between the potential services lost and the services this proposal will replace.

13. Public Support – 55 Support Comments

The NRDP received a total of 55 comments in support of the funding the Anaconda waterline proposal, including letters from the ADLC Council of Commissioners, the Anaconda Project Facilitators, Community Hospital of Anaconda, Deer Lodge County Head Start, United Methodist Church, eight businesses, Sen. Jesse Laslovich, and 41 residents.

14. Matching Funds and Cost Sharing – 5.7% proposed by ADLC; 1.4% as revised by NRDP

ADLC proposes in-kind services for administration, project oversight, fiscal management, construction coordination services (\$17,956) and disposal of mine waste into ARCO's waste repository (\$57,200). ADLC proposes to remove and dispose of any mine waste that may be encountered during the water main installation. After consultation with several agencies,

NRDP is not certain that disposal of this mine waste is required, but it may be at some time in the future.¹²

ADLC estimated that 833 cubic yards of mine waste may be encountered as a part of the water main replacement. To be conservative and ensure that they did not over-estimate the waste volume and therefore, the amount of matching funds required, ADLC reduced the estimated amount of waste to 208 cubic yards. ADLC then priced the removal and disposal of the mine waste as if it were RCRA hazardous waste, at \$275 per cubic yard to haul it to the nearest hazardous waste facility, in Idaho. However, though the waste is priced to go to a hazardous waste facility it is proposed to go to the ARCO waste repository. Therefore, these matching funds are not going to be actually spent on this proposal.

The composition and quantity of wastes that could be encountered during the proposed project is unknown at this time. There is a potential that mine waste or other wastes could be encountered that could require removal and disposal of offsite. However, it is doubtful that any RCRA waste will be encountered, which would require the disposal in a hazardous waste facility. If by chance RCRA waste were indeed encountered, it could not be disposed of at the ARCO waste repository. In addition, the cost to haul and dispose mine waste at the ARCO waste repository is estimated on Table F-1 in the application to be \$6/yard which is more reasonable than the \$275/yard that is proposed as matching funds. Moreover, Table F-1 indicates the cost of hauling this material will be dealt with as a construction cost covered by Restoration Funds and not as matching funds.

NRDP policy requires that matching funds be actual costs spent to complete the proposal. The NRDP therefore concludes that the \$57,200 estimated cost to dispose the mine waste is not allowable as matching funds. The following table summarizes the NRDP's matching fund determination.

Budget	Restoration Funds	Matching Funds	Percentage of Match	Total Budget
ADLC Budget	\$1,239,332	\$75,156	5.7%	\$1,314,488
NRDP Revised Budget	\$1,239,332	\$17,956	1.4%	\$1,257,288

15. Public Access – Not Applicable

Public access is not a component of this proposal, nor is it relevant to the project.

16. Ecosystem Considerations – Positive Impacts

The ADLC states that the grant proposal will provide a net benefit to the local ecosystem by conservation of water resources and reduced power requirements for pumping and treating water. These statements are correct; however, the overall effect of the requested grant funds is limited, since the proposed water main replacement may conserve up to 10% of the 1.3 million gallons of water loss per day in Anaconda.

¹² Based on phone conversations on May 1, 2007 between Tom Mostad (NRDP staff) and (1)Jim Kuipers (ADLC Consultant), (2) Rachel Clark (DEQ Public Water Supply Section Supervisor), and (3) Charlie Coleman (EPA).

17. Coordination and Integration – Coordinates/Integrates

This proposal coordinates with other waterline projects being implemented by ADLC and integrates with other ADLC plans, including the 2004 PER which proposes waterline replacement on a priority basis. It will be done following completion of the East Third and South Birch streets waterline replacement proposal grant, which is planned for the summer of 2007.

18. Normal Government Functions – Substantially Augments Normal Government Functions

Waterline installations and repairs are part of local government responsibilities, as they are the owners of the water distribution systems. The NRDP considers this proposal as one that augments, not replaces, normal government function because communities typically rely on grant funds to assist in funding such work and also because the replacement of severely leaking waterlines is an effective way to compensate the community for extensive injuries to the Anaconda area groundwater resources that were covered under Montana v. ARCO.

ADLC proposed to provide matching funds of \$75,156 or 5.7% for this proposal, but the NRDP has allowed only \$17,956 in matching funds, which is 1.4% of the proposal cost, as discussed in the matching fund section of this evaluation. Due to this low match, and because ADLC is currently relying on Restoration Funds for all of its waterline replacement activities, the NRDP considers this proposal as one that substantially augments normal government function.

ADLC has offered several reasons as to why they are currently unable to contribute greater funding to this proposal at this time. ADLC is still in a serious cash deficient position due to lagging rate revenues and the need to reestablish inadvertently depleted bond reserves. To restore bond reserves and coverage on a 1992 issue, all Water Enterprise Fund cash currently available must necessarily be allocated to those reserves. To correct this shortfall in future years, ADLC is initiating a water rate study through MRWS in 2007. ADLC has also implemented a three-year, 12 percent per annum water rate increase beginning in 2006, but revenues to date are less than projected.

ADLC has not applied to the state's Treasure State Endowment Fund and Renewable Resource Grant and Loan programs because ADLC does not currently meet these program's target rates for eligibility due to low cumulative water and sewer rates and because these programs effectively require water metering for competitive consideration and a match via additional local debt. ADLC has proposed to conduct a water metering study that would hopefully lead to a system-wide water metering, which will help conserve water and, along with the proposed increase in water rates, make other grant programs more accessible.

APPENDIX B

CRITERIA COMPARISONS

Appendix B: Project Criteria Comparisons

This section compares the projects pursuant to each criterion, summarizing the similarities and differences between the projects that were determined through a comparison of the Project Criteria Narratives contained in Appendix A. There are two criteria that apply specifically to land acquisition and research projects. Three of the eight projects proposed have land acquisition components; none of the eight projects have a research component.

Stage 1 Criteria Required by Legal Considerations

#1 Technical Feasibility

This criterion evaluates the degree to which a project employs well-known and accepted technologies and the likelihood that a project will achieve its objectives. It considers both the technology and management aspects of the project in judging whether each of the proposed project elements have a reasonable chance of successful completion in an acceptable period of time. The State will not fund projects considered technologically infeasible or insufficiently planned.

The Butte Waterline, Anaconda Waterline, Big Hole Waterline, Anaconda Water Studies, Thompson Park, Johnson/Cottonwood Creek, and Greenway projects involve standard, proven technologies and are all considered reasonably feasible as proposed and likely to achieve the stated objectives. Of these, the three waterline projects have the highest degree of certainty of technical and administrative feasibility, given that both counties have successfully completed waterline replacements for a number of years. While the Anaconda Studies involves some new efforts for ADLC, the county has management skills to complete the studies and associated activities and will procure a qualified engineering consultant to conduct them. The Thompson Park, Johnson/Cottonwood Creek, and Greenway projects all have uncertainty associated with the success of proposed land acquisitions that depend on the results of landowner negotiations. The Greenway project involves larger land acquisitions and the benefits of the Greenway project are more tied to the proposed land acquisitions compared to the Thompson Park and Johnson Creek projects. The Johnson Creek project, which involves construction of new recreational/education facilities, is at more of a conceptual design phase and has more uncertainties to be resolved than the Thompson Park project, which builds on existing recreational facilities.

The actual construction of the Milltown Sediment Removal is technically feasible, as this type of work is currently being successfully implemented at the Milltown site under the remedial action. The uncertainties associated with this grant project concern whether or not the timing of this project will correspond correctly with the remedial schedule, which would result in significant cost savings, and whether the parties can agree on the cost to complete the work. The State hopes to have an agreement on the costs to remove and haul sediments from SAA IIIB, IV, and V to the Atlantic Richfield Waste Management Area by the Governor's funding decision date.

#2 Relationship of Expected Costs to Benefits

This criterion evaluates the degree to which project costs are commensurate with project benefits. While it is possible to quantify most costs, quantifying benefits is more difficult. Thus, application of this criterion is not a straight cost:benefit analysis. Because this criterion involves a weighing of all public benefits expected to be derived from a project against all costs associated with the project, it is essentially a summation of results of all other criteria.

The NRDP considers the proposed costs for all eight projects to be reasonable and the benefits to be worth the costs. While no project had costs that were considered to exceed the value of the benefits, the cost:benefit relationship varies for the projects, based on the magnitude of the benefits and whether matching funds or cost savings are offered that would improve the relationship of the benefits compared to costs. The NRDP judged the relationship of expected benefits to expected costs for the eight projects as follows:

- High Net Benefits (benefits significant outweigh costs): Greenway project
- Net Benefits (benefits outweigh costs): Milltown Sediment Removal, Thompson Park, Big Hole Waterline, Johnson/Cottonwood Creek projects
- Commensurate Benefits (benefits are generally equal to costs): Anaconda Water Studies, Butte Waterline, Anaconda Waterline projects

The Greenway project will substantially benefit the injured natural resources of Silver Bow Creek by enhancing fish and wildlife habitat and the ecological and recreational services associated with these restored resources. Organic matter placement, plantings in the floodplain, and aquatic enhancements will accelerate recovery of these resources. The proposed land acquisitions and easements will provide lands for wetlands, public recreational uses, and protection of the remediated and restored floodplain corridor. The proposed bridges will facilitate continued development of the Greenway trail, which will provide for public access to the corridor in an ecologically-protective manner and for enjoyment of a variety of recreational opportunities. The project provides for optimal coordination with remedy, thereby achieving significant cost savings.

The Milltown Sediment Removal project offers substantial restoration benefits associated with the removal of the additional contaminated sediments, which include a larger, more baseline floodplain, thereby further reducing potential future flooding impacts, and reduced sources of groundwater and surface water contamination. It is estimated that removal the SAA IIIB sediments would double the width of the floodplain for about ¼ mile upstream of the confluence of the Clark Fork and Blackfoot Rivers. Other substantial benefits of the proposed removals include enhanced open space, wetlands, natural areas, and trails, and recreation opportunities. The cost:benefit relationship of this project depends greatly on the costs developed through the negotiations with Envirocon, ARCO, and AIG for the removal of the additional sediments. If a cost at or below the requested \$2.8 million can be agreed upon, the cost:benefit relationship for this project is considered as net benefit. The proposed costs are based on significant cost savings that could be achieved via coordination with remedy.

The Thompson Park project offers substantial recreational benefits to a large public, with increased opportunities for picnicking, biking, hiking, open-space enjoyment, wildlife viewing, and fishing. With the proposed recreational sites, rails-to-trails feature, and the associated extensive hiking and biking trails network that would be accessible to people of all ages and abilities, Thompson Park has the potential to attract recreational users both locally and regionally. The proposed improvements will significantly reduce sediment inputs to and thereby improve the aquatic and riparian resources of Blacktail Creek. The NRDP recommends a funding condition that would maximize the leveraging of potential timber sale revenues, which could decrease Restoration Fund costs.

The Big Hole Waterline offers substantial benefits to Butte and Rucker residents. The Big Hole supplies 60-80% of Butte's water supply and is also the primary water source for the community of Rucker. The pipeline is unquestionably in critical need of repair, and the project would fix 10% of the total line in three sections that have some of the worst leaks. Benefits include improved delivery of a reliable drinking water source; reduced demand on water resources; reduced water pumping, treating, and transportation costs; reduced repair costs; and improved flows and fire protection. B-SB does not have the data needed to estimate the reduced costs associated with this project. The number and severity of the leaks in the Big Hole transmission line affect all the water users and thus have a greater impact than the leaks associated with the water main lines distribution lines in the City of Butte that serve a portion of the water users.

The expected recreational benefits of the Johnson/Cottonwood Creek project include increased public access and natural resource-based recreational opportunities, such as hiking, fishing, open-space enjoyment, and bird-watching to a large public, given the project area location in the middle of Deer Lodge. The educational benefits of the project include providing students and adults an understanding of natural resources and the remediation and restoration efforts taking place in the UCFRB, via hands-on curriculum for the outdoor education center and interpretive signs throughout the Center and along the Johnson Creek Trail. The project will substantially benefit the public's use and enjoyment of natural resources at a reasonable cost, particularly given the low acquisition costs.

The Anaconda water metering study and associated public outreach activities will result in a report on metering alternatives and recommendations. The benefits of this study depend on whether system-wide metering is implemented, which is uncertain. The water distribution study will result in a hydraulic computer model that can be used to help identify water leakage problems and to better predict, prioritize, and plan future water conservation activities. This model could yield substantial benefits in a short amount of time by better planning and use of limited funds for water conservation projects and is thus considered of net benefit. The overall benefit of the entire project is negatively affected by the uncertainty of the implementation of system-wide metering; however, the NRDP judges the overall benefit of the project as commensurate with the cost of the proposal. If implementation of system-wide metering would occur, the entire project may have high net benefits or at least net benefits.

The Butte Waterline and Anaconda Waterline projects offer substantial benefits to the Butte and Anaconda communities and water system users. The proposed replacement waterlines directly

service 106 water users in Anaconda and 280 water users in Butte but also affect the water pressure of other water users in these communities. The waterline projects will improve delivery of a reliable drinking water source; improve fire protection; conserve water; and reduce treatment, repair and property damage costs. Both projects compensate a large public for some of the lost use that Butte has suffered due to the inability to use groundwater in much of the city and for extensive injuries to the shallow and bedrock aquifers surrounding Anaconda.

B-SB provides an analysis indicating that project savings for the Butte waterline project could exceed annual cost by over 3½ to one. Though many assumptions were made in this calculation and they cannot precisely quantify the benefit, the fact that B-SB repaired about 282 leaks in their water system in the past year, which is far more than other city water system of similar size, is a good indication that their waterline system needs to be addressed. The Water Master Plan that was approved for NRDP funding in 2005 will provide a water-balance and a better picture of the leakage in the system. Given the lower cost:benefit ratio than previous years' projects, principally due to lower match (10% this year compared to 25-30% in past years) and higher construction costs, the NRDP believes the benefits gained from this replacement proposal are commensurate with the costs. If the project construction costs are significantly lower than estimated, the project could be judged as having net benefits.

ADLC estimates the Anaconda Waterline project will save up to 130,000 gallons of water loss per day, which is 10% of the total leaks in the system. Using ADLC's estimated production/delivery cost of \$1.07 per thousand gallons, a water savings of 130,000 gallons/day would result in about \$50,772 in annual benefits, which is comparable to the equivalent annual cost of \$50,400. This project involves completing the Schedule II portion of the 2005 proposal, which was not completed due to lack of matching funds. Several factors have lead to a reduced cost:benefit relationship compared to the 2005 proposal, which was judged to be of net benefit. They include higher construction costs, the additional costs incurred because the 2005 project was split into phases, and a decrease in matching funds from 12.4% in 2005 to 1.4% for this year's proposal. Thus, the NRDP believes the benefits gained from this proposal are commensurate with its costs. If this proposal had more substantial matching funds and costs nearer to those originally proposed in 2005, the NRDP would have considered it as one of net benefit.

#3 Cost-Effectiveness

This criterion examines whether a particular project accomplishes its goals in the least costly way possible, with preference given to projects with demonstrated cost-effectiveness. Applicants were to address this criterion through the analysis of alternatives and justification of the selected alternative.

The NRDP judged that all the projects are likely to be cost-effective. All of the proposed alternatives for accomplishing stated goals involved costs considered reasonable. Also common to all projects was the determination that a no-action alternative would not meet project goals and thus was not a viable alternative. All of the project applications fell short of providing a thorough analysis of alternatives except for the Milltown Sediment Removal project.

The Clark Fork Coalition presented and thoroughly analyzed four alternatives in the Milltown Sediment Removal application. The NRDP agrees that the preferred alternative is the best approach to remove the SAA IIIB, IV, and V sediments. The multi-year budgeting proposal will allow Restoration Funds to be available in order to coordinate this project with ongoing remediation and restoration actions. The preferred alternative offers cost-effective benefits, if a reasonable price at or below the dollar amount used for this application can be agreed to with Envirocon.

The selected alternative for the Greenway, including a request for two years instead of one year of funding, provides for optimal coordination with remediation compared to other alternatives. The NRDP considers the proposed enhancements of this project likely to be cost-effective, given the reasonableness of the costs, combined with the sound approaches that are based on past similar efforts and coordination with the remedial actions. No other alternatives to the proposed approach exist that would accomplish the intended goal of completing public ownership and management of the entire Silver Bow Creek floodplain.

The two studies that comprise the Anaconda Water Studies project provide the planning needed to cost-effectively maximize ADLC's future water conservation activities. The water metering study is needed to conduct public education, update implementation costs, and complete technical analysis prior to implementation of system-wide metering. The computer model is needed to identify and prioritize water main replacement projects.

The NRDP believes that completing the Big Hole project as proposed is likely a cost-effective alternative to addressing problems with the water distribution system that are specific to the Big Hole transmission lines. B-SB proposes to use its own crews in order to provide matching funds and have the needed controls associated with the treatment plant. Based on similar work conducted in-house, this approach appears cost-effective.

Based on the supplemental information provided for the Thompson Park project concerning costs of alternatives, and given the reasonableness of the costs, the NRDP considers the project to likely be cost-effective. The chosen alternatives for the proposed improvements are appropriately designed to minimize environmental disruption and to maximize longevity, reuse of existing access features, public accessibility and use, and natural resource benefits.

The NRDP believes the level of effort and costs of the proposed Johnson Creek trail and the Cottonwood Creek Education Center are reasonable and the proposed approach for both components is sound. As part of its project development grant effort, the County pursued an alternative that would have combined the trail and educational features along Cottonwood Creek, but this alternative was of questionable feasibility and greater costs. An alternative of funding one of the project components but not the other would not achieve the overall project goals.

The Butte Waterline project is likely a cost-effective alternative to addressing problems with the water distribution system and meeting B-SB's specific goal of replacing deteriorated and undersized water mains. A more definitive alternatives analysis that will hopefully be accomplished through the Butte Master Plan effort, which will be completed in late 2007, is needed to determine whether replacing waterlines is the most economical alternative to replacing all of the lost services as B-SB maintains. B-SB has proposed implementation alternatives of

either bidding the work, which is B-SB's preferred approach, or conducting the work in-house; the NRDP considers both approaches to be cost-effective.

Based on current information and past similar efforts, the Anaconda Waterline project is likely cost-effective for the stated goal of reducing leakage. It is unclear, however, whether replacing waterlines is the most cost-effective way to conserve water when compared to system-wide water metering. Only 7% of Anaconda's residents are metered. The proposed Anaconda Water Studies project, if funded and implemented, should provide better information for future alternatives analysis, so a more definitive selection of alternatives can be made.

#4 Environmental Impacts

This criterion evaluates whether and to what degree the proposal will have an adverse impact on environmental resources. None of the projects will cause significant adverse impacts to the environment. All of the projects will have potential long-term benefits to the environment.

The Anaconda Water Studies project is a planning effort that will not have any adverse impacts and will potentially benefit water conservation by improving water management and prioritizing future water projects.

The Big Hole Waterline, Butte Waterline, and Anaconda Waterline projects do not present any significant adverse impacts to the environment. Minor, short-term impacts may occur to aesthetics, water quality, and vegetation associated with excavation activities. Disturbed areas will be properly reclaimed.

The Greenway, Milltown Sediment Removal, Thompson Park, and Johnson/Cottonwood Creek projects involve construction activities that, without mitigation, could result in potentially significant short-term adverse impacts to air and water quality and aquatic resources. The applicants for all these projects properly plan for needed permits and mitigation activities to minimize impacts.

#5 Human Health and Safety Impacts

This criterion evaluates whether and to what degree the proposal will have an adverse impact on human health and safety. None of the projects will have any significant adverse human health and safety impacts and all have potential long-term benefits to human health and safety.

The Anaconda Water Studies project does not present any adverse impacts to human health and safety.

The Milltown Sediment Removal, Big Hole Waterline, Butte Waterline, Anaconda Waterline, Greenway, Thompson Park, and Johnson/Cottonwood Creek projects have potential impacts to human health and safety associated with construction activities, such as worker safety, dust, noise, and traffic hazards. The applicants for these projects appropriately plan for needed safety and mitigation measures.

#6 Results of Superfund Response Actions

This criterion examines the relationship between projects and completed, planned, or anticipated Superfund response actions. The State will tend to favor projects that build on response actions rather than those that undo an effective response action.

The Greenway and Milltown Sediment Removal projects involve positive coordination with remedial actions and this coordination offers substantial cost savings. The Greenway involves optimum coordination with the planned Silver Bow Creek remediation and the Greenway's proposed activities will enhance remedial activities. The removal of the SAA IIIB, IV, and V sediments could be coordinated with the remedial sediment removal that is planned for the SAA I sediments and would also enhance remedial activities. There is some uncertainty concerning the timing since the remedial action schedule is not completely set, but based on progress to date, this coordination can likely occur. The proposed removal will require modifications of the existing remediation and restoration plans for the Milltown site.

The other projects are considered consistent with remedial actions. They will not interfere with or duplicate the results of these actions. The Johnson/Cottonwood Creek project is outside the historic 100-year floodplain of the Clark Fork River and outside of any tributary reach that will receive remedial action.

#7 Recovery Period and Potential for Natural Recovery

This criterion evaluates whether and to what degree a project affects the time frame for natural recovery of the injured resources to their baseline conditions. Reduction of the recovery period benefits a project's overall ranking. This criterion also evaluates the potential for natural recovery of injured resources. If a resource is expected to recover on its own in a short period of time, a restoration action may not be justified.

The Greenway and the Milltown Sediment Removal projects will enhance the recovery time of injured resources. The Greenway's proposed ecological enhancements along miles 11-18 of Silver Bow Creek will accelerate recovery of the injured aquatic and terrestrial resources. The Milltown project will help restore the aquatic and riparian resources of the Clark Fork River near the confluence with the Blackfoot River.

The Thompson Park project will improve the aquatic resources of Blacktail Creek, which can augment the recovery of the Silver Bow Creek fishery, once remediation of Silver Bow Creek has been completed and water quality has improved.

The other five projects will not affect the time frame for recovery of injured resources.

#8 Applicable Policies, Rules, and Laws

This criterion evaluates to what degree the proposal is consistent with all applicable policies of state, federal, local and tribal government and in compliance with applicable laws and rules. Consistency with applicable policies, rules, and laws benefits a project's overall ranking.

The NRDP concludes that all eight projects can be implemented in compliance with applicable laws and rules. All applications identified the needed permits and plans for obtaining them. The Superfund permit exemption clauses would apply to the proposed Milltown sediment removal activities. The Greenway, Thompson Park and Johnson/Cottonwood Creek projects will need to meet specific weed inspection and management requirements that apply to public purchases of property. The planned NEPA analysis for the Thompson Park project may result in changes to the proposed alternatives that require NRDP approval. B-SB and ADLC appropriately plan to follow the Montana Public Work specifications for the three waterline projects.

#9 Resources of Special Interest to the Tribes and Department of Interior

Pursuant to a Memorandum of Agreement (MOA), the State is to address natural resources of special interest to the Confederated Salish and Kootenai Tribes (Tribes) and the Department of Interior (DOI) in its restoration planning process. Projects that may cause potential negative impacts to resources of special interest require special consideration, according to provisions of the MOA.

Appropriate historical and cultural database inquiries have been or will be conducted for all the projects that entail disturbance activities and the project applicants will consult with appropriate entities should historic or cultural resources be discovered during project implementation.

The Milltown Sediment Removal, Greenway, and Thompson Park projects are likely to benefit any natural resources of special interest to these entities. The Milltown project will enhance aquatic habitat for bull trout and wetlands. The Greenway will enhance fish and wildlife habitat, including wetlands. The Thompson Park project will improve the aquatic resources of Blacktail Creek, which supports a native westslope cutthroat trout fishery. The other five projects will not impact any natural resources of special concern.

Comment letters from the DOI and Tribes are contained in Attachment A. The DOI supports funding of the Milltown, Greenway, Thompson Park, and Anaconda Water Studies proposals and does not object to funding of the other proposals. At the August 14, 2007 Advisory Council meeting, the Tribes voted in support of funding of seven of the eight projects. They did not vote in support of funding for the Anaconda Waterline project due to funding cap and cost-effectiveness considerations.

As indicated in their comment letter, the Tribes consider Butte, Anaconda and Deer Lodge areas as regions that are Tribal traditional use areas and contain recorded prehistoric sites. The Tribes thus encourage the applicants for the Greenway, Thompson Park, Big Hole Waterline, Butte Waterline, Anaconda Waterline and Johnson/Cottonwood Creek projects to be aware of the potential for encountering buried cultural features and/or artifacts during excavations. There are known Tribal resources in the vicinity of the Milltown Reservoir and the Milltown Consent Decree provides for any needed historical mitigation during remediation and restoration. If funded, the project grant agreement for these projects would require compliance with the State/Tribal MOU that provides for the proper inquiry and consultation with the Tribes during project implementation, as requested by the Tribes.

Stage 2 Criteria Reflecting Montana Policies

#10 Project Location

This criterion evaluates the proximity of the proposal to the injured resources it restores or replaces. The *RPPC* expresses a preference for restoration projects that occur at or near the site of injury.

All the projects except for the Big Hole pipeline are considered within the UCFRB and proximate to injured resources. The Milltown Sediment Removal project is located within the Milltown Reservoir Sediment Operable Unit, the States' restoration planning project area for the Clark Fork and Blackfoot Rivers near Milltown, and the injured aquatic resources of the Clark Fork River. All of the Greenway project activities will occur at or near the injured resource areas of Silver Bow Creek. The Butte Waterline project overlies the injured Butte Hill groundwater resource. The Anaconda Waterline project is adjacent to the injured Anaconda-area groundwater resource. The Anaconda Water Studies project area is in Anaconda within and adjacent to injured groundwater resource areas. The Johnson/Cottonwood Creek project is near the Clark Fork River aquatic resource injured area. The Thompson Park project is located about 10 miles south of Butte.

The Big Hole Waterline project is partly outside of the Basin but services water users that reside in the Basin. About half of the Big Hole transmission line is within the Basin and about half is south of the Basin boundary at the Continental Divide.

#11 Actual Restoration of Injured Resources

This criterion evaluates whether and to what extent a project actually restores an injured resource. A preference exists for those projects that constitute actual restoration (i.e., they operate directly on the injured resources). For those projects that do not constitute actual restoration, a preference can be given to those that may or will indirectly contribute to restoration of injured natural resources over those that do not so contribute.

The Milltown project in its entirety constitutes actual restoration of the aquatic and riparian resources of the Clark Fork River near the confluence with the Blackfoot River. Removal of additional sediments would facilitate and accelerate recovery of the channel, floodplain, riparian vegetation, and groundwater resources towards baseline conditions.

The majority of the components and costs (66%) of the Greenway project constitute actual restoration of injured resources. The other project costs for acquiring lands or easements along the Silver Bow Creek floodplain and for trail bridges contribute to restoration by providing for protection of remediated and restored areas.

The Thompson Park project may contribute to restoration of the injured resources of Silver Bow Creek through improvements to the aquatic resources of Blacktail Creek.

The Anaconda Water Studies, Big Hole Waterline, Butte Waterline, and Anaconda Waterline projects are considered replacement projects and will not restore or contribute to the restoration of injured resources; however, these projects replace services of injured groundwater resources that cannot be restored and constitute compensatory restoration. The Johnson/Cottonwood Creek project is also a replacement project and not intended to accomplish restoration of an injured natural resource. The educational aspects of the project may indirectly contribute to restoration by promoting stewardship of those resources.

#12 Relationship between Service Loss and Service Restoration

This criterion examines the connection between the services that a project seeks to address and the services that were lost or impaired. Projects that focus on providing the same or similar services as those lost or impaired will be favored over projects that focus on providing dissimilar services.

The Milltown project would restore the aquatic and riparian resources and associated ecological and recreational services that were subject of the Montana v. ARCO lawsuit. The project is a response to the injuries directly associated with hazardous substance releases from the mining operations that occurred in the Butte and Anaconda area. Thus, there is a direct connection between the proposed project and ecological and recreational services that were lost due to the Milltown Dam and the contaminated sediment that accumulated behind the dam.

The Big Hole Waterline, Butte Waterline, Anaconda Waterline, and Anaconda Water Studies projects provide for replacement drinking water services that are closely linked to the injured groundwater resources of the Butte and Anaconda areas. The waterline projects will enhance the water supply from an unaffected source. The Anaconda Water Studies will determine the best way to enhance Anaconda's water supply from unaffected sources.

The Greenway project will provide some of the same services that were lost as a result of natural resource injuries. Those services include ecological services such as aquatic and wildlife habitat and recreational services such as fishing, hiking, bird watching, wildlife viewing, and open space enjoyment.

The Thompson Park and Johnson/Cottonwood Creek projects will provide recreational services that are considered equivalent to the recreational services lost that were the subject of Montana v. ARCO, such as hiking, picnicking, wildlife viewing, open space enjoyment, and fishing. The magnitude of these recreational services is greater for the Thompson Park than the Johnson/Cottonwood Creek project. The educational components of the Johnson/Cottonwood Creek project can enhance stewardship of natural resources and thereby enhance natural resources and the services they provide.

#13 Public Support

This criterion assesses the level of public support based on information provided to the State between application submittal in March 2007 and completion of the *Pre-Draft Work Plan* in

early July 2007. This criterion will be updated at the draft and final work plan phases to include any additional public comment received before the Governor's funding decision.

The Anaconda Waterline project received the highest demonstrated public support with 55 comments in support including letters from representatives of 13 entities and 42 Anaconda residents. The Anaconda Water Studies project has the next highest demonstrated public support with 35 support comments from 11 entities and 24 residents.

The Thompson Park project received 13 support letters from 12 entities and 1 individual. The Johnson/Cottonwood Creek project received 9 support letters from 8 entities and 1 family. The Big Hole Waterline and Butte Waterline projects received support comments from 8 and 7 entities, respectively, most of them the same. The Milltown and Greenway projects received support from 5 and 2 entities, respectively.

#14 Matching Funds

This criterion evaluates the extent to which a project entails cost sharing. For the Anaconda Waterline, Thompson Park, and Johnson Creek projects, the NRDP revised the proposed matching funds because some of the proposed match did not constitute a direct match for the activities that were the subject of the Restoration Fund request.

In terms of percentage match, the Thompson Park project has the highest percent of matching funds at 33% from various sources totaling \$496,676, as revised by the NRDP, with an approximate 50/50 split between in-kind services and cash match. The Big Hole Waterline project follows with a 25% match from B-SB totaling \$548,241, with \$470,876 for in-kind labor and \$77,365 for contracted services.

The Butte Waterline project has a 10% match of \$268,556, with \$227,484 cash match (8%) and \$41,072 (2%) in-kind match. The Johnson/Cottonwood Creek project has an 8% match of \$53,550, as revised by the NRDP, with \$33,550 (5%) in-kind match and \$20,000 (3%) cash match.

The Anaconda Water Studies project has a 5% match of \$6,274 for in-kind services. The Anaconda Waterline project has a 1.4% match of \$17,956 for in-kind services, as revised by the NRDP.

The Greenway and Milltown Sediment Removal projects have no matching funds, but should obtain cost savings through coordination with remedy.

#15 Public Access

This criterion evaluates whether a project will affect public access and the positive or negative aspects of any increased or decreased public access associated with the project. Public access is not required for every project, nor is it relevant to all projects.

The Greenway, Thompson Park, and Johnson/Cottonwood Creek projects will result in increased public access. The Greenway's proposed acquisition of the 133-acre Golden Technologies parcel and all other needed acquisitions/easements for the entire Greenway trail will allow the public to access and recreate along Silver Bow Creek in a manner protective of restored resources. The proposed improvements in Thompson Park will greatly enhance the recreational value of existing public lands and the proposed acquisition of two in-holdings totaling 40 acres and right-of-way easements will increase public access. The Johnson/Cottonwood Creek project will increase public recreational access to these creeks through acquisition of three small parcels and donated easements. These three projects adequately involve weed control and management measures to minimize the impacts from increased public access.

The Milltown Sediment Removal project has the potential to provide increased public access. Removal of the SAA IIIB sediments would improve site access since this area would no longer be a repository and could therefore be open to public access, assuming this area is acquired by a public entity.

Public access is not a component of the other four projects.

#16 Ecosystem Considerations

This criterion examines the relationship between the project and the overall resource conditions of the UCFRB. The State will favor projects that fit within a broad ecosystem concept in that they improve a natural resource problem(s) when viewed on a large scale, are sequenced properly from a watershed management approach, and are likely to address multiple resource problems.

All eight projects positively fit within the broad ecosystem context. The Milltown Sediment Removal, Greenway, and Thompson Park projects will benefit aquatic, riparian, and terrestrial resources. Both the Greenway and Thompson Park projects will improve aquatic and terrestrial resources and associated recreational services in the headwaters of the UCFRB. The Big Hole Waterline, Butte Waterline, and Anaconda Waterline projects will conserve water and reduce power requirements of pumping and treating water. The Anaconda Water Studies project should lead to water conservation and reduced power requirements for pumping and treating. The educational components of Johnson/Cottonwood Creek project can contribute to furthering the knowledge of children and adults about ecosystem concepts and stewardship.

#17 Coordination and Integration

This criterion examines whether, how, and to what extent a restoration project is coordinated and integrated with other on-going or planned actions in the UCFRB, besides the coordination with Superfund remedial actions addressed under Criterion #6. Restoration projects that can be efficiently coordinated with other actions may achieve cost savings.

The Greenway and Thompson Park projects are consistent with the priorities established in the *Silver Bow Creek Watershed Restoration Plan*; they all address needs ranked as either very high

priority or high priority. Of these projects, the Greenway addresses the needs of highest priority. The *Silver Bow Creek Watershed Restoration Plan* is not applicable to the other projects.

The Milltown Sediment Removal project considers and coordinates with the other restoration actions the State is proposing at the Milltown site, the County's redevelopment plan, and the Clark Fork Coalition's landownership plans for the area. Sediment removal from SAA IV and V would integrate with DEQ's TMDL program to reduce the sediment load in the Clark Fork River.

The Johnson/Cottonwood Creek project coordinates with the FEMA project on Cottonwood Creek and the Deer Lodge Trail project and integrates with the Clark Fork Watershed Education Program (CFWEP), which will develop lesson plans and assist with design of the outdoor education center. The Greenway and Thompson Park projects coordinate with the CFWEP, which uses Silver Bow Creek as an outdoor classroom and would also use Thompson Park with the proposed improvements. The Thompson Park project coordinates with other USFS trail projects in the vicinity.

The Anaconda Water Studies project coordinates well with other studies, such as the Montana Rural Water System rate study and the water system leak study funded by Restoration Funds and potentially coordinates with future water main replacement projects. The Anaconda Waterline project is integrated with ADLC's 2004 Preliminary Engineering Report, which proposes replacement of waterlines on a priority basis. All three waterline projects coordinate with other funded waterline replacement projects.

#18 Normal Government Functions

As set forth in the *RPPC*, the State, through its restoration program, will not fund activities for which a governmental entity would normally be responsible or that would receive funding in the normal course of events. Restoration Funds may be used to augment funds normally available to government agencies to perform a particular project if such cost sharing would result in implementation of a restoration project that would not otherwise occur through normal agency function.

The Greenway, Milltown Sediment Removal, and Johnson/Cottonwood Creek projects involve efforts that are outside normal government function. After the Greenway and Johnson/Cottonwood Creek projects are implemented, the Greenway Service District and Powell County, respectively, will assume operation and maintenance responsibilities.

The Thompson Park project will result in improvements that are not required by law and for which funding is presently insufficient. The proposed capital improvements go well beyond routine operation and maintenance activities that are typically funded with assistance of grant funds and the applicants are providing a significant match of 33%. The USFS regularly utilizes grants as a way to supplement Congressional funds when those funds are inadequate to meet the needs to manage the resources and meet the increasing public demands for utilization of public lands. It is unlikely that, without supplemental grant funds, the proposed improvements would be conducted in the near future due to funding constraints at the county level and other priorities.

that dictate funding at the federal level. The applicants have committed to conducting routine operation and maintenance activities in Thompson Park and maintaining the proposed improvements in the long-term.

The Big Hole Waterline, Butte Waterline, Anaconda Water Studies, and Anaconda Waterline projects also augment government function because communities typically rely on a combination of grant funds and user fees to fund such projects and because of the extensive injuries to groundwater resources. All four projects constitute compensatory restoration for extensive injuries to the bedrock aquifer underlying Butte Hill and the shallow alluvial aquifer in areas surrounding Anaconda that were covered under Montana v. ARCO. Restoration of these injured groundwater resources is technically infeasible, which is one reason these communities sought to augment their existing supplies from uncontaminated sources. Of these four projects, the Big Hole Waterline offers the best cost share of 25% and involves replacement of 10% of the total line. While the match for Butte Waterline project of 10% (8% cash and 2% in-kind) is low and significantly lower than the 25% to 30% match provided with past waterline projects, B-SB is seeking to replace only a portion (30%) of the waterlines that need replacement with Restoration Funds via its intended 15-year effort. The two Anaconda projects substantially augment government function due to their low match of 1.4% of in-kind services on the Anaconda Waterline project and 5.5% of in-kind services for Anaconda Water Studies, both of which are in-kind matches, as well as other factors considered in evaluating whether the applicants are providing an acceptable cost-share as the *RPPC* contemplates for projects that augment normal government function. Once such factor is the proportion of leaking waterlines to be replaced with Restoration Funds. Based on requests to date, Anaconda's intended replacement program involves replacing 100% of the leaking waterlines with Restoration Funds over 10 to 12 years, whereas Butte's intended replacement program involves replacing 30% of the leaking waterlines with Restoration Funds over a 15-year period.

Stage 2 Land Acquisition Criteria

These criteria apply to the Greenway, Thompson Park, and Johnson/Cottonwood Creek projects.

#19 Desirability of Public Ownership

The acquisition components of all three projects provide substantial recreational benefits to large communities that were impacted by natural resource injuries. Of the three projects, the Greenway involves the greatest land acquisition component and associated benefits. The Greenway acquisitions provide for protection of the remediated and restored floodplain. The other two projects involve small acquisitions that will enhance the benefits of the proposed improvements, but are less critical to the overall success of the projects compared to the Greenway.

A negative aspect common to all the acquisition projects is the potential loss of increased tax revenues that would be generated under a development scenario. The potential tax revenue decreases over a number of years would be of some significance; the current tax revenues for the properties involved with the Greenway and Johnson/Cottonwood Creek projects are \$3,400 and \$2,628, respectively. The tax revenue associated with the 40 acres total to be acquired via

Thompson Park project is \$751.48. There will be an increased demand in governmental services associated with the acquisitions, with a greatest increase in demand expected for the Greenway. The Thompson Park acquisitions would not significantly increase the demand for governmental services because they entail minor additions (40 acres) to a much larger park area (3,454 acres) already under government ownership and management. The small acquisitions for the Cottonwood Creek education center that entail two homes and one vacant lot would also involve a minor increase demand for governmental services. The positive benefits of these acquisitions are considered to outweigh the negative impacts associated with lost tax revenues and increased demand for governmental services.

#20 Price

The NRDP has reviewed and approved the appraisals that were the basis for the three properties to be acquired for the Johnson/Cottonwood project. The fair market value for these properties totals \$100,200. A new appraisal, subject to NRDP approval, would be needed to validate a purchase price for any of the parcels that is above the appraised values provided in the application.

The price for Greenway and Thompson Park projects is uncertain because appraisals have not yet been completed. The applicants have used a reasonable basis to estimate the acquisition costs. NRDP approval is needed for all land acquisitions and appraisals associated with these projects.

APPENDIX C

PROJECT CRITERIA
COMPARISONS

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Greenway Service District

Project Title: Silver Bow Creek Greenway

- 1. Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

- 2. Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

- 3. Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO? This analysis should address the activities to be covered both by Restoration Funds and matching funds.

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

The Greenway Service District requests \$2,111,194 in Restoration funds over a two-year period to enhance aquatic and riparian habitat along the Silver Bow Creek corridor, install four prefabricated trail bridges, and acquire private lands for public ownership and recreational trail use. The major project components, which will occur along miles 11-15 in Subarea 3 and 16-18 in Subarea 4, are: 1) ecological improvements such as tree/shrub plantings, and organic matter incorporation in floodplain soils (70% of grant or \$1.5 million) and associated ecological monitoring; 2) access components in the form of 4 trail bridges to be installed in coordination with remediation (\$400,000 or 19% of grant); 3) land acquisition of 130 acres within mile 17 of the Creek (\$130,000 or 6% of the grant); and 4) land acquisition planning (\$100,000 or 5% of the grant).

This proposal significantly constitutes restoration and replacement of injured natural resources and services along Silver Bow Creek. This project will directly coordinate restoration efforts with remedial actions. Most components of this project, such as habitat restoration, constitute actual restoration of injured resources because they will directly enhance injured aquatic and terrestrial habitat. The placement of four foot bridges on the Creek will improve recreational access along SBC and constitute replacement of lost recreational services. The land purchase involves an area that will have all tailings removed and vegetation planted throughout the whole parcel under remediation. Purchase of this land constitutes acquisition of equivalent resources and thereby meets the legal threshold.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☒ The project meets all minimum qualification requirements; OR
- ☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Clark Fork Coalition

Project Title: Milltown Sediment Removal Project

- 1. Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes* <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

*While the applicant has completed the needed budget forms and narrative, a major uncertainty exists regarding the proposed project budget. The budget is based on a preferred alternative involving the removal and transport of sediments to Opportunity Ponds for disposal by the remedial contractor, Envirocon, Inc. Successful negotiations with Environcon, Inc. and their clients, ARCO and AIG, need to occur in order for this alternative to be implemented.

- 2. Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

- 3. Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of

Montana v. ARCO? This analysis should address the activities to be covered both by Restoration Funds and matching funds.

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

The Clark Fork Coalition requests \$2,794,330 for the removal of about 560,000 cy³ of metal-contaminated sediment in and adjacent to the floodplain of the Clark Fork River upstream of the Milltown Dam. The contaminated sediment is within the Milltown Reservoir Sediment Operable Unit and results from historic mining and smelting activities in the Butte and Anaconda areas. Under the EPA remedial action, these sediments would either be consolidated in an armored, long-term waste repository outside, but adjacent to, the 100-year floodplain (SAA IIIB sediments) or left-in place (SAA IV and V sediments). The proposal to remove these additional contaminated sediment would restore portions of the floodplain and thus constitutes restoration.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☒ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

This project integrates with the State's Milltown Restoration Plan for the Clark Fork River and Blackfoot River near Milltown Dam. Since the removal of the SAAIII-b sediments would change the remedial plan to armor them in place, a modification to the Milltown Consent Decree would need to be approved by all parties participating in the Consent Decree.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☐ The project meets all minimum qualification requirements; OR
- ☒ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Butte Silver Bow Local Government

Project Title: Thompson Park Improvement Project

- 1. Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms*	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

*While the required budget forms were submitted, the budget detail and accompanying narrative needed to do a full evaluation for a few of the proposed project features.

- 2. Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

- 3. Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO? This analysis should address the activities to be covered both by Restoration Funds and matching funds.

☒ Yes for majority of project ☐ No ☒ Uncertain for one aspect of project

Explain why or why not and indicate any assumptions made in this determination.

Total cost for this project is \$1,558,352, with \$953,817 requested in Restoration funds. This project is designed to improve natural resources and recreational opportunities in the Blacktail Creek watershed, a tributary watershed to Silver Bow Creek. Thompson Park is a 3,454-acre municipal park, located about 10 miles south of downtown Butte in the Beaverhead-Deerlodge National Forest. The Park is jointly managed by Butte-Silver Bow City/County and the U. S. Forest Service. In the 1930's, the Works Progress Administration built the majority of the park roads and recreation sites. The park provided recreational opportunities to the community of Butte and visitors to southwest Montana. However, over time the park's infrastructure has greatly deteriorated. This project proposes to bring back the lost recreation potential of the park.

The major components of the \$953,817 Restoration fund request include improvements to nine dilapidated recreation sites, such as adding toilets and picnic tables (\$220,000 or 23% of costs); replacement of three road access bridges and secondary road rehabilitation (\$325,000 or 34%) in Thompson Park; trail work that primarily entails rehabilitation of an old railroad tressel and two tunnels (\$274,000 or 29% of costs); and easements/acquisitions of lands for public recreational uses (\$120,000 or 13% of costs).

This proposal intends to benefit water quality and fisheries of Blacktail Creek by minimizing sedimentation in the Creek through road and bridge improvements. These efforts will likely benefit the surface water and fisheries of Blacktail Creek, thus constituting replacement of injured resources. The significance of these natural resource improvements, however, was not assessed for this screening level evaluation.

The improvements to the recreational facilities, trails and access generally constitute acceptable replacement of lost recreational services as improving these features would enhance natural resource based recreational activities such as hiking, trail biking, open-space enjoyment, and wildlife viewing that are substantially similar to some of the recreational services covered under Montana v. ARCO. However, further evaluation is needed of the proposed railroad trestle and tunnels improvements to judge whether these features are more about providing users an experience of being on a railroad, which is not a type of recreational service covered under Montana v. ARCO, than about providing hiking trail access. The additional evaluation would come via the analysis of two RPPC criteria in particular: (1) cost effectiveness and (2) relationship between service loss and service restoration.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☐ The project meets all minimum qualification requirements; OR
- ☒ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Butte-Silver Bow Local Government

Project Title: Big Hole Transmission Line Replacement

- 1. Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

- 2. Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

- 3. Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

Butte-Silver Bow requests \$1,644,722 in Restoration funds and proposes \$547,724 in matching funds to replace almost two miles of deteriorating 36-inch transmission lines from the Big Hole River, which supplies at least 60% of Butte's water supply. The total length of the Big Hole Transmission line is 18 miles, most of which is in dire need of replacement.

Butte's bedrock aquifer is contaminated throughout a six square mile area of the City. This aquifer is so severely injured that natural recovery will not occur for thousands to tens of thousands of years as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water storage capacity and transport services have been lost forever. This proposal constitutes replacement of lost services to some of the thousands of property owners and other members of the public in Butte that could use the aquifer if it was not injured.

The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock injuries in Butte. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean groundwater in much of the City.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☒ The project meets all minimum qualification requirements; OR
- ☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Powell County

Project Title: Johnson Creek Recreation Trail and Cottonwood Creek Outdoor Native Education Center

1. Application Completeness – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. Location threshold:

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. Legal threshold: Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO? This analysis should address the activities to be covered both by Restoration Funds and matching funds.

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

Powell County requests \$608,145 in Restoration funds and proposes \$478,981 in matching funds to complete final designs for and construct a two-mile recreational trail along Johnson Creek and an outdoor education center along Cottonwood Creek. Features include a greenway trail to improve and expand public access to both creeks, a handicap accessible fishing access platform, outdoor educational facilities and opportunities for both children and adults to understand the ecosystem and enhance stewardship of natural resources. The outdoor education center requires acquisition of three small parcels.

The full project has the potential to replace lost or impaired services. The proposed recreational enhancements along both creeks, such as a greenway trail and handicap-access fishing platform, would enhance recreational services that are considered equivalent to the recreational services lost that were the subject of Montana v. ARCO, such as fishing, hiking, birdwatching, and open space enjoyment.

The Cottonwood Creek outdoor classroom will consist of several learning stations that focus on the relationship between natural resources and remediation/restoration efforts. Each station provides the opportunity for kids to perform hands-on learning and/or experiments about resources and observing how each system functions. Interpretive signage along the Johnson Creek trail would also cover natural resource and remediation/restoration topics. The educational components of this project can indirectly contribute to restoration of injured resources by enhancing the stewardship of these resources in the long-term. Education projects such as this one that pertain to the natural resources or services that were subject of Montana v. ARCO can also be viewed as projects that can replace the lost or impaired existence or non-use values of Montana citizens that were covered under Montana v. ARCO.

Based on this screening level analysis, the project as a whole, constitutes replacement of lost services; however, there may be some aspects of the project that NRDP may, after further evaluation, find do not meet this minimum qualification.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☒ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three

litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

☒ The project meets all minimum qualification requirements; OR

☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR

☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Anaconda Deer Lodge County

Project Title: Water Metering and Distribution System Modeling Studies

1. Application Completeness – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. Location threshold:

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. Legal threshold: Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☒ Uncertain

Explain why or why not and identify any assumptions made in this determination.

Anaconda Deer Lodge County requests \$107,771 in Restoration funds and proposes \$6,247 in matching funds to conduct water metering and distribution system modeling studies. These studies will be used to plan future water conservation activities such as waterline replacement and to educate the public on the benefits of water metering. The water conservation associated with this project is an alternative to ADLC having to establish a new source of water to fulfill its water needs. Extensive groundwater contamination, caused by hazardous substance releases from mining activities, exists in the upper portion of the alluvial aquifer east of Anaconda and the bedrock aquifer north and south of Anaconda. This contamination to some degree limits the City's available drinking water sources. The modeling study has the potential to provide significant information for optimizing future waterline replacements; however, based on this screening level analysis, it is uncertain whether the water metering study will provide significant information that will definitively lead to future water conservation plans.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☐ The project meets all minimum qualification requirements; OR
- ☒ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Butte-Silver Bow Local Government

Project Title: Drinking Water Infrastructure Replacement Year Seven

1. Application Completeness – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

2. Location threshold:

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

3. Legal threshold: Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO? This analysis should address the activities to be covered both by Restoration Funds and matching funds.

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

This proposal is for replacement of inadequate water distribution lines in the city of Butte. As proposed, approximately 17,000 feet of waterline is to be replaced at a cost of \$2,685,559, with \$2,417,003 requested in Restoration funds and \$268,556 in matching funds. The requested funding is for the seventh year of waterline replacement and Butte-Silver Bow plans to request this type of funding for a total of 15 years.

Butte's bedrock aquifer is contaminated throughout a six square mile area of the City and these distribution lines overlay that aquifer. This aquifer is so severely injured that natural recovery will not occur for thousands to tens of thousands of years as concluded by the State's 1995 Restoration Determination Plan and by EPA's 1994 Record of Decision. Restoration of the bedrock aquifer is infeasible, thus the aquifer's drinking water storage capacity and transport services have been lost forever. This proposal constitutes replacement of lost services to some of the thousands of property owners and other members of the public in Butte that could use the aquifer if it was not injured.

The State's 1995 Restoration Determination Plan considered upgrading Butte's antiquated water system as a viable restoration alternative for the bedrock injuries in Butte. This proposal will enhance the water supply from an unaffected source, thus compensating the public for some of the lost use of groundwater that Butte has suffered due to the inability to tap clean ground water in much of the City.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☒ The project meets all minimum qualification requirements; OR
- ☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

Minimum Qualifications Screening Form for Applications over \$25,000

Project Applicant: Anaconda Deer Lodge County

Project Title: East Sixth and East Seventh Street Water Main Replacements

- 1. Application Completeness** – Is the application complete? Indicate Yes or No for each application component below

Project Summary Form	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Project Abstract	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Environmental and Human Health Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Technical Narrative	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Criteria Statements	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Budget Narrative and Forms	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Identify what is missing or incomplete. This determination involves evaluating whether the required information is provided and is complete enough to proceed with the next phase of evaluating how well the project meets criteria.

- 2. Location threshold:**

Is the proposed project: 1) to be located within the UCFRB; or 2) a research or education project that pertains to restoration of natural resources located within the UCFRB?

☒ Yes ☐ No

- 3. Legal threshold:** Is the proposed project a research or monitoring project? If so, go to (b) below.

(a) Based on this screening level evaluation, does it appear that the project would, as a whole, constitute or contribute to the restoration, rehabilitation, replacement or acquisition of the equivalent of natural resources injured or services lost as a result of releases of hazardous substances by ARCO and its predecessors that were subject of Montana v. ARCO? This analysis should address the activities to be covered both by Restoration Funds and matching funds.

☒ Yes ☐ No ☐ Uncertain

Explain why or why not and indicate any assumptions made in this determination.

Anaconda-Deer Lodge City/County (ADLC) requests \$1,239,332 in Restoration funds and proposes \$75,157 in matching funds, for a total project cost of \$1,314,488, to replace 4,960 feet of leaking water mains on East Sixth and East Seventh streets in Anaconda. This project is a replacement project that will conserve water for the City of Anaconda. Water conservation is achieved by installation of a new water main in place of the existing leaking water main, thus reducing the volume of treated water lost and reducing the need for pumping and treating additional water to meet the City's demand. The water conservation associated with this project is an alternative to ADLC having to establish a new source of water to fulfill its water needs. Extensive groundwater contamination, caused by hazardous substance releases from mining activities, exists in the upper portion of the alluvial aquifer east of Anaconda and the bedrock aquifer north and south of Anaconda. This contamination to some degree limits the City's available drinking water sources. This project meets the replacement criteria because it will enhance a public water supply from an unaffected source.

(b) Is the proposal a research or monitoring project that would provide significant information regarding the restoration of injured natural resources in the UCFRB?

☐ Yes ☐ No ☐ Uncertain

Explain why or why not and identify any assumptions made in this determination.

4. **Qualifications:** Does the applicant have the ability, credit worthiness, and other qualifications necessary to undertake the proposed project?

☒ Yes ☐ No ☐ Uncertain

Explain any qualified responses, uncertainties, or deficiencies concerning the applicant's qualifications.

5. **Interference with Unresolved Litigation or Pending RODs:** Will the project interfere, potentially interfere, overlap, or partially overlap with the State's remaining three litigation claims (Uplands, Area One, CFR) or the State's proposed restoration plans for these three sites?

☐ Yes ☒ No

If yes, explain the areas of interference.

Overall Determination: Choose which applies and explain any determination based on uncertainties.

(a) Proceed with full evaluations

- ☒ The project meets all minimum qualification requirements; OR
- ☐ The uncertainties are of such a nature that the project should proceed in the process to receive full evaluation.

(b) Do not proceed with full evaluation

- ☐ The project does not meet one or more minimum qualification requirements and should not proceed further in the evaluation process; OR
- ☐ There is such a significant uncertainty as to whether the project meets minimum qualifications that the project should not proceed further in the evaluation process.

APPENDIX D

PROJECT BUDGET SUMMARY TABLES

Greenway 2007 Summary Budget

TABLE 1 - DETAILED 2007 GRANT COST ESTIMATE, 2008 FUNDING

2008 FUNDING:

Area / Item Description	Quantity	Unit	Unit Price	Total	Notes
PREFAB. BRIDGES, SA 4 Phase 6/7					
75' span, 12' wide	2	EA	\$93,000.00	\$186,000.00	Engineers estimate, typical foundation conditions
Subtotal				\$186,000.00	
LAND ACQUISITION					
Additional Planning Money	1	LS	\$100,000.00	\$100,000.00	Applies to all areas of the OU
Potential Golden Technologies Purchase	131	Acres	\$1,000.00	\$131,000.00	Fee Title or Easement, Maximum Potential Amount
Subtotal				\$231,000.00	
ECOLOGICAL AND HABITAT IMPROVEMENTS					
Subarea 1					
Opportunistic Ecological Improvements	1	LS	\$35,000.00	\$35,000.00	Misc Opportunistic Improvements
Subarea 3					
Organic Matter/Soil Amendment	120	Acres	\$1,500.00	\$180,000.00	Based on Phase 3 and Phase 4 costs
Plantings	30	Acres	\$2,500.00	\$75,000.00	1/4 of total area
Enhanced Plant Palette (seeding)	120	Acres	\$400.00	\$48,000.00	Based on Phase 3 and Phase 4 costs
Stream Habitat	10,560	LF	\$7.00	\$73,920.00	estimate 2 miles
Subarea 4 - Phase 6 Area					
Organic Matter/Soil Amendment	107	Acres	\$1,500.00	\$160,500.00	Based on Phase 3 and Phase 4 costs
Plantings	27	Acres	\$2,500.00	\$66,875.00	1/4 of total area
Enhanced Plant Palette (seeding)	107	Acres	\$400.00	\$42,800.00	Based on Phase 3 and Phase 4 costs
Stream Habitat	8,597	LF	\$7.00	\$60,179.00	Estimated from Design Development Report (DEQ 2006)
Subtotal				\$742,274.00	
MONITORING AND WEED CONTROL					
Revegetation Monitoring	1	LS	\$0.00	\$0.00	None required in 2008
Weed Control	1	LS	\$25,000.00	\$25,000.00	Based on Reach F and G estimate, plus inflation
Subtotal				\$25,000.00	
DESIGN					
Access Features Design (15%)	1	LS	\$27,900.00	\$27,900.00	Investigation, Design, and Construction Oversight
Ecological Features Design (5%)	1	LS	\$37,113.70	\$37,113.70	Includes Coordination Cost Savings
Subtotal				\$65,013.70	
2008 Cost Totals					
Subtotals					
Access Features and Land Acquisition				\$417,000.00	
Ecological and Habitat Improvements				\$742,274.00	
Monitoring and Weed Control				\$25,000.00	
Contingency (5%)				\$59,213.70	
Project Administration and Oversight (5%)				\$59,213.70	GSD costs
Design				\$65,013.70	Percentages provided above
TOTAL 2008 COSTS				\$1,367,715.10	

TABLE 1A - DETAILED 2007 GRANT COST ESTIMATE, 2009 FUNDING

Area / Item Description	Quantity	Unit	Unit Price	Total	Notes
PREFAB. BRIDGES, SA 4 Phase 7/8					
75' span, 12' wide	2	EA	\$93,000.00	\$186,000.00	Engineers estimate, typical foundation conditions
Subtotal				\$186,000.00	
ECOLOGICAL AND HABITAT IMPROVEMENTS					
Subarea 4 - Phase 7 Area					
Organic Matter/Soil Amendment	108	Acres	\$1,500.00	\$162,000.00	Based on Phase 3 and Phase 4 costs
Plantings	27	Acres	\$2,500.00	\$67,500.00	1/4 of total area
Enhanced Plant Palette (seeding)	108	Acres	\$400.00	\$43,200.00	Based on Phase 3 and Phase 4 costs
Stream Habitat	14,270	LF	\$7.00	\$99,890.00	Estimated from Design Development Report (DEQ 2006)
Subtotal				\$372,590.00	
MONITORING AND WEED CONTROL					
Revegetation Monitoring	1	LS	\$50,000.00	\$50,000.00	Based on Anticipated costs provided by NRDP and DEQ
Weed Control	1	LS	\$25,000.00	\$25,000.00	
Subtotal				\$75,000.00	
DESIGN					
Access Features Design (15%)	1	LS	\$27,900.00	\$27,900.00	Investigation, Design, and Construction Oversight
Ecological Features Design (5%)	1	LS	\$18,629.50	\$18,629.50	Includes Coordination Cost Savings
Subtotal				\$46,529.50	
2009 Cost Totals					
Subtotals					
Access Features and Land Acquisition				\$186,000.00	
Ecological and Habitat Improvements				\$372,590.00	
Monitoring and Weed Control				\$75,000.00	
Contingency (5%)				\$31,679.50	
Project Administration and Oversight (5%)				\$31,679.50	GSD costs
Design				\$46,529.50	Percentages provided above
TOTAL 2009 COSTS				\$743,478.50	
TOTAL GRANT FUNDING REQUEST:					
COMPLETE GRANT APPLICATION TOTALS					
Access Features and Land Acquisition				\$603,000.00	
Ecological and Habitat Improvements				\$1,114,864.00	
Monitoring and Weed Control				\$100,000.00	
Contingency (5%)				\$90,893.20	
Project Administration and Oversight (5%)				\$90,893.20	GSD costs
Design				\$111,543.20	
TOTAL				\$2,111,193.60	

Milltown Sediment Removal Summary Budget

PROJECT BUDGET SUMMARY FORM (All Years)										
EXPENSE CATEGORY			UCFRB RESTORATION FUND	APPLICANT CONTRIBUTION			OUTSIDE SOURCES			TOTAL
				Cash	In-Kind	Subtotal	Cash	In-Kind	Subtotal	
1	YEAR 1	SALARIES AND WAGES	\$1,730.00							\$1,730.00
	YEAR 2	SALARIES AND WAGES	\$1,730.00							\$1,730.00
	SALARIES AND WAGES SUBTOTAL		\$3,460.00							\$3,460.00
2	YEAR 1	FRINGE BENEFITS	\$755.00							\$755.00
	YEAR 2	FRINGE BENEFITS	\$755.00							\$755.00
	FRINGE BENEFITS SUBTOTAL		\$1,510.00							\$1,510.00
3	YEAR 1	CONTRACTED SERVICES	\$1,250,800.00							\$1,250,800.00
	YEAR 2	CONTRACTED SERVICES	\$1,538,560.00							\$1,538,560.00
	CONTRACTED SERVICES SUBTOTAL		\$2,789,360.00							\$2,789,360.00
4	YEAR 1	SUPPLIES AND MATERIALS								
	YEAR 2	SUPPLIES AND MATERIALS								
	SUPPLIES AND MATERIALS SUBTOTAL									
5	YEAR 1	COMMUNICATIONS								
	YEAR 2	COMMUNICATIONS								
	COMMUNICATIONS SUBTOTAL									
6	YEAR 1	TRAVEL								
	YEAR 2	TRAVEL								
	TRAVEL SUBTOTAL									
7	YEAR 1	RENT AND UTILITIES								
	YEAR 2	RENT AND UTILITIES								
	RENT AND UTILITIES SUBTOTAL									
8	YEAR 1	EQUIPMENT								
	YEAR 2	EQUIPMENT								
	EQUIPMENT SUBTOTAL									
9	YEAR 1	MISCELLANEOUS								
	YEAR 2	MISCELLANEOUS								
	MISCELLANEOUS SUBTOTAL									
YEAR 1 TOTAL			\$1,253,285.00							\$1,253,285.00
YEAR 2 TOTAL			\$1,541,045.00							\$1,541,045.00
ALL YEAR TOTAL			\$2,794,330.00							\$2,794,330.00

In electronic form this spreadsheet will automatically calculate the expense totals from the following Budget Detail Form.

Thompson Park Budget Summary

	Unit	Unit Cost	# of Units	Cost	NRD Request	Matching Funds	InKind	Cash	InKind	Cash	InKind	Cash	Notes
							BSB		USFS		Other		
Eagles Nest Parking Area													
Grade and level	sf	2.60	1,800	4,680	4,680								
Gravel	sf	0.50	1,800	900	900								
Wheelstops	no.	100.00	6	600	600								
Site ID sign - RSE	ea	1,000.00	1	1,000	1,000								
Site Sign - SA 1 2	ea	400.00	2	800	800								
Guide Sign - FRD	ea	400.00	1	400	400								
Bulletin Board	ea	700.00	1	700	700								
Fence - 2 rail - 300 feet (incl labor)	lf	5.22	300	1,586	1,586								
Subtotal				10,646	10,646								
Contingency		0.15		1,597	1,597								
Site Design, contract prep, andmin		0.40		4,897		4,897	1,616		3,281				
Total				17,140	12,243	4,897	1,616		3,281				
Eagles Nest Host Site													
Grade and level	sf	2.60	900	2,340	2,340								
Clearing and Grubbing	ac	1,500.00	1	1,500	1,500								
Gravel	sf	0.50	600	300	300								
Wheel stop	ea	100.00	1	100	100								
Sign	ea	400.00	1	400	400								
Holding Tank	ea	4,500.00	1	4,500	4,500								
Tables (incl \$500 spec design)	ea	1,200.00	1	1,200	1,200								
Picnic Space	ea	250.00	1	250	250								
Living Space	ea	350.00	1	350	350								
Pedestal Grill	ea	350.00	1	350	350								
Subtotal				11,290	11,290	0							
Contingency		0.15		1,694	1,694								
Site Design, contract prep, andmin		0.40		5,193		5,193	1,870		3,324				
Total				18,177	12,984	5,193	1,870		3,324				
Sagebrush Flats Group Site (#0) 2500 sf; 3 single units (500 sf ea)													
Site Grading	sf	2.60	4,000	10,400	10,400								
Stump Removal	ea	50.00	30	1,500	1,500								
Gravel	sf	0.50	8,700	4,350	4,350								
Wheel stops	ea	100.00	29	2,900	2,900								
Site ID sign - RSE	ea	1,000.00	1	1,000	1,000								
Site Sign - SA 2	ea	400.00	2	800	800								
Guide Sign - FRD	ea	400.00	1	400	400								
Garbage cans/rack	ea	220.00	2	440	440								
Garbage can/holder	ea	70.00	3	210	210								
Tables	ea	1,200.00	12	14,400	14,400								
Pedestal Grill - large	ea	350.00	2	700	700								
Pedestal Grill - small	ea	200.00	3	600	600								
Council Ring (stone)	ea	2,700.00	1	2,700	2,700								
Type I Bench	ea	175.00	4	700	700								
Type II Bench	ea	300.00	4	1,200	1,200								
Toilet (incl site design)	ea	15,000.00	1	15,000	15,000								
Interp Sign/Bulletin Board - 64 sf	ea	7,500.00	1	7,500	7,500								
Fence - 2 rail - 300 feet	lf	2.25	696	1,566	1,566								
Pedestrian Paths	sf	1.75	1,200	2,100	2,100								
Picnic Space	ea	250.00	12	3,000	3,000								
Living Space	ea	350.00	5	1,750	1,750								
Subtotal				73,216	73,216								
Contingency		0.15		10,982	10,982								
Site Design, contract prep, andmin		0.40		33,679		33,679	10,777		22,902				
Total				117,878	84,198	33,679	10,777		22,902				

Thompson Park Budget Summary

	Unit	Unit Cost	# of Units	Cost	NRD Request	Matching Funds	InKind	Cash	InKind	Cash	InKind	Cash	Notes
							BSB	USFS	Other				
Lower Eagles Nest Group site (15) – 1600 sf													
Grade and level	sf	2.60	133	346	346								
Stump removal	ea	50.00	5	250	250								
Gravel	sf	0.50	1,500	750	750								
Wheel stop	ea	100.00	3	300	300								
Site ID sign - RSE	ea	1,000.00	1	1,000	1,000								
Site Sign - SA 2	ea	400.00	2	800	800								
Guide Sign - FRD	ea	400.00	1	400	400								
Garbage cans/rack	ea	220.00	1	220	220								
Pedestrian Paths	sf	1.75	600	1,050	1,050								
Tables	ea	1,200.00	3	3,600	3,600								
Pedestal Grills	ea	350.00	1	350	350								
Toilet	ea	15,000.00	1	15,000	15,000								
Fence – 300 ft	lf	2.25	696	1,566	1,566								
Interp Sign/Bulletin Board 32 sf	ea	5,000.00	1	5,000	5,000								
Subtotal				30,632	30,632								
Contingency		0.15		4,595	4,595								
Site Design, contract prep, andmin		0.40		14,091		14,091	4,368		9,723				
Total				49,318	35,227	14,091	4,368		9,723				
Blacktail Canyon Parking Area 6 vehicles (1800sf)													
Grade and level	sf	2.60	1,800	4,680	4,680								
Gravel	sf	0.50	1,800	900	900								
Wheelstops	ea	100.00	6	600	600								
Site ID sign - RSE	ea	1,000.00	1	1,000	1,000								
Bulletin Board	ea	700.00	1	700	700								
Fence – 2 rail – 300 feet	lf	2.25	696	1,566	1,566								
Subtotal				9,446	9,446								
Contingency		0.15		1,417	1,417								
Site Design, contract prep, andmin		0.40		4,345		4,345			4,345				
Total				15,208	10,863	4,345			4,345				
Lion's Den: Site 1: 3 single units (500 sf ea)Site 1: 3 single units (500 sf ea)													
Grade and level	sf	2.60	1,500	3,900	3,900								
Stump removal	ea	50.00	0	0	0								
Gravel	sf	0.50	1,500	750	750								
Wheel stops	ea	100.00	3	300	300								
Site ID sign - RSE	ea	1,000.00	1	1,000	1,000								
Site Sign - SA 2	ea	200.00	2	400	400								
Directional Sign - FRD	ea	200.00	1	200	200								
Garbage cans/rack	ea	220.00	0	0	0								
Garbage can/holder	ea	70.00	3	210	210								
Table	ea	1,200.00	3	3,600	3,600								
Pedestal Grill	ea	325.00	3	975	975								
Toilet	ea	15,000.00	1	15,000	15,000								
Interpretation Sign/bulletin board	ea	7,500.00	1	7,500	7,500								
Subtotal				33,835	33,835								
Contingency		0.15		5,075	5,075								
Site Design, contract prep, andmin		0.40		15,564		15,564	3,891		11,673				
Total				54,474	38,910	15,564	3,891		11,673				
Archery Range Toilet													
						18,000					2,000	16,000	

Thompson Park Budget Summary

	Unit	Unit Cost	# of Units	Cost	NRD Request	Matching Funds	InKind	Cash	InKind	Cash	InKind	Cash	Notes
							BSB		USFS		Other		
9-Mile Day Use: 2 single units and parking area													
Grade and level	sf	2.60	900	2,340	2,340								
Gravel	sf	0.50	1,800	900	900								
Wheel stop	ea	100.00	6	600	600								
Site ID Sign RS1	ea	1,400.00	2	2,800	2,800								
Garbage cans/rack	ea	220.00	1	220	220								
Garbage can/holder	ea	70.00	2	140	140								
Tables	ea	1,200.00	2	2,400	2,400								
Pedestal Grill	ea	350.00	2	700	700								
Toilet	ea	15,000.00	1	15,000	15,000								
Fence – 300 ft	lf	2.25	696	1,566	1,566								
Bulletin Board – 32 sf		20.00	32	640	640								
Interpretation Sign	ea	7,500.00	1	7,500	7,500								
Subtotal				34,806	34,806								
Contingency		0.15		5,221	5,221								
Site Design, contract prep, andmin		0.40		16,011	16,011	16,011	9,606		6,404				
Total				56,038	40,027	16,011	9,606		6,404				
Miscellaneous													
Project Mobilization		10,000.00	1	10,000	10,000								
Contracting Officer (FS)		1,890.00	1	1,890	1,890								
MT. HWY 2 guide signs - 5 signs		500.00	1	500	500								
Thompson Park Site Signs (3) RS1		1,400.00	3	4,200	4,200								
Total				16,590	16,590								
Total Developed Recreation Sites													
				344,823	251,042	93,781	32,129	0	61,652	0	0	0	
ROADS													
Road Rehabilitation: Eagle's Nest, Lion's Den, Blacktail Pulout, Thompson Park Trailhead – estimated 2.25 mi													
Culverts		576.00		10,368	10,368								
Gravel (5622 cubic yards)		14.50		81,519	81,519								
Ditch Armoring (2933 cubic yards)		7.50		21,998	21,998								
Project Design, Contract Prep and Adm.				12,990	12,990	12,990	5,326		7,664				
Total		598.00		126,875	113,885	12,990	5,326		7,664				
Bridge Replacment at Eagle's Nest and Lion's Den													
Bridge and concrete sills		59,331.94		177,996	177,996								
Bridge Installation		10,340.00		31,020	31,020								
Boulder Rip Rap/cleanup and seeding		2,625.00		7,875	7,875								
Project Design, Contract Prep and Adm.				10,175	10,175	10,175	10,175						
Total				227,066	216,891	10,175	10,175						
TRAILS													
Trail construction/relocation: 2.5 miles.													
Trail tread construction/relocation: 2.5 miles.		14,000.00	3	35,000	35,000	12,575			1,575		11,000		
Switchback/climbing turns		1,500.00	8	12,000	12,000								
Puncheon (low bridge)	ft	25.00	150	3,750	3,750								
Blasting	ft	50.00	260	13,000	13,000								
Certified Blaster	day	315.00	10	3,150	3,150								
Total		15,890.00		79,475	66,900	12,575			1,575	0	11,000	0	
Misc Trail Work													
Logging out, drain dip cleanout,		4,030.00	7	28,210	28,210				1,575		24,945	1,690	
General	mi	8,000.00	2	16,000	15,055				945				
CDNST Homestake-Pipestone		86,000.00		86,000	86,000				60,200	25,800			
Beaver Ponds Trail Relocation		6,600.00		6,600	6,600						6,600		RTP Grant - Secured
Pipestone Pass TrailHead work		7,480.00		7,480	7,480				630	6,850			
Total				144,290	15,055	129,235			63,350	32,650	24,945	8,290	

Thompson Park Budget Summary

	Unit	Unit Cost	# of Units	Cost	NRD Request	Matching Funds	InKind	Cash	InKind	Cash	InKind	Cash	Notes
							BSB		USFS		Other		
Milwaukee Railroad Trail													
Tressel Safety – 1200 ft													
Remove ballast/curbing		4,000.00		4,000	4,000								
Replace curbing		25,000.00		25,000	25,000								NW Energy Fencing Donation (5000) - Secured
Railing and covered fence		78,000.00		78,000	38,000	40,000						40,000	RTP Grant(35000) - Not Secured
Total		107,000.00		107,000	67,000	40,000						40,000	
Tunnel Rehabilitation & lighting													
Detail Tunnel Mapping		27,600.00		27,600	27,600								
Plans/Specification for high hazards		25,660.00		25,660	25,660								
Construction supervision - contract with Engineering firm		31,900.00		31,900	31,900								
Unlined segment repair		118,600.00		118,600	22,600	94,000						94,000	RTP Grant - Not Secured
Solar lighting system - 1705 ft		98,400.00		98,400		98,400						98,400	NW Grant - Not Secured
Prelim Inspection		13,000.00		13,000		13,000		3,000				10,000	
Interpretation	ea	3,290.00	4	13,160	10,000	3,160			3,150				
Total				328,320	117,760	208,560		3,000	3,150			202,400	
Land / Easement Acquisition													
McDonald Parcel		1,000.00	20	20,000	20,000								no access
Hoff Parcel		4,000.00	20	80,000	80,000								access
Humber and Henningsen Easements		10,000.00	2	20,000	20,000								
Total				120,000	120,000								
Road Obliteration and Enhancement													
Misc road obliteration		8,250.00		8,250	3,250	5,000		5,000					Compost
Herman Gulch Riparian Rehabilitation (fence, berms, cattleguard, etc)		4,550.00		4,550	1,500	3,050			940	2,110			materials
Canyon Campground Rehabilitation		3,790.00		3,790		3,790			3,032	758			materials
Total				16,590	4,750	11,840		5,000	3,972	2,868			
Other													
NEPA - Projects on NFS lands only		100,000.00		100,000		100,000			100,000				
Grants/Agreement		2,520.00		2,520	2,520								
Grant Coordination		12,600.00		12,600	12,600								
CKMS Consulting		9,600.00		9,600		9,600					9,600		
Total				124,720	15,120	109,600			100,000		9,600		
Total Trails and Road Rehabilitation				1,272,335	737,360	534,975	15,501	8,000	179,711	35,518	45,545	250,690	
Total Developed Recreation Sites				344,823	251,042	93,781	32,129	0	61,652	0	0	0	
Grant Total				1,617,158	988,402	628,756	47,630	8,000	241,363	35,518	45,545	250,690	

Big Hole Transmission Line Summary Budget

Chart A: Project Budget Summary

NATURAL RESOURCE DAMAGE PROGRAM -- 2007 APPLICATION

Butte-Silver Bow - Transmission Line Replacement Project -- Year 7

	Annual	Y2007	NRDP	BSB	BSB
DESCRIPTION	Hours	Total	Share (75%)	In-kind	Cash Share (25%) of Total
1. SALARIES AND WAGES					
DPW Director	82	\$ 3,032	\$ -	\$ 3,032	
Water Division General Manager	252	\$ 5,713	\$ -	\$ 5,713	
DPW Engineer Technican	404	\$ 5,761	\$ -	\$ 5,761	
Water Division Staff	572	\$ 10,016	\$ -	\$ 10,016	
Other Staff	60	\$ 1,020	\$ -	\$ 1,020	
Sub-Total Salaries		\$ 25,542	\$ -	\$ 25,542	
				\$ -	
2. BENEFITS @ 34% of Wages		\$ 8,684	\$ -	\$ 8,684	
Total Wages and Benefits:		\$ 34,227	\$ -	\$ 34,227	
3. CONSTRUCTION SERVICES:					
Engineering Consultation		\$ 328,255	\$ 250,890		\$ 77,365
Construction (includes supplies and materials to replace pipes)		\$ 1,823,636	\$ 1,393,832	\$ 429,804	
4. SUPPLIES AND MATERIALS		\$ -	\$ -		\$ -
5. COMMUNICATIONS		\$ -	\$ -		\$ -
6. TRAVEL		\$ -	\$ -		\$ -
7. RENT AND UTILITIES		\$ -	\$ -		\$ -
8. EQUIPMENT		\$ -	\$ -		\$ -
9. MISCELLANEOUS					
Indirect Costs @ 20% of salaries and benefits		\$ 6,845	\$ -	\$ 6,845	
TOTAL PROJECT COSTS:		\$ 2,192,963	\$ 1,644,722	\$ 470,876	\$ 77,365

NOTES:

Engineering design, inspection and grant administration @ 18% of construction costs

** Construction based on Butte-Silver Bow estimates plus 15% contingency

Johnson Creek Recreation Trail and Cottonwood Creek Outdoor Native Education Center Budget

Trail

Task 1	Land Survey for easements	\$7,280.00
Task 2	Land Survey f	\$5,200.00
Task 3	final design	\$30,000.00
Task 4	permitting	
Task 5	construction of trail	\$64,620.39
Task 6	amenities	\$10,116.00
Task 7	vegetation	\$5,750.00
Task 8	foot bridge	\$9,000.00
Task 9	Fencing	\$5,000.00
	\$136,966.39	

project management	\$20,800.00
travel	\$1,668.50
Total	\$159,434.89

Education Ctr

Task 1	land survey	\$7,200.00
Task 2	documentation for acquisitions	
Task 3	Permits	
Task 4	Final design	\$20,025.00
Task 5	repeat of task 2	
Task 6	CFWEP curriculum	\$16,157.40
Task 7	Outreach	\$4,225.00
Task 8	Well	\$31,228.56
Task 9	trail construction	\$59,960.39
Task 10	foot bridge	\$9,000.00
Task 11	sprinkler system	\$7,500.00
Task 12 -1	amphitheater	\$1,124.00
Task 12-2	stream viewing # 1	\$3,002.00
Task 12-3	wetland feature # 2	\$11,059.03
Task 12-4	Riparian vegetation zone	\$4,727.00
Task 12-5	Forest Vegetation	\$2,016.00
Task 12-6	study tables	\$1,500.00
Task 12-7	butterfly garden	\$1,502.00
Task 12-8	prairie grassland	\$1,449.00
Task 13	fishing access	\$5,210.04
Task 14	demolition costs	\$19,500.00
Task 15	parking area	\$4,825.00

contracted services total	\$211,210.42
legal fees	\$3,700.00
land acquisition	\$100,200.00
project management	\$28,600.00
travel	\$1,688.50
Total	\$345,398.92

Project administration	\$40,548.99
plant mortality	\$2,048.80
contingency	\$60,603.42

total	\$103,201.21
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Grand total	\$608,035.02
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Match	\$478,981.00
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Total Project Cost	\$1,087,016.02
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Anaconda Meter Model Summary Budget

PROJECT BUDGET SUMMARY FORM									
EXPENSE CATEGORY		UCFRB RESTORATION FUND	APPLICANT CONTRIBUTION			OUTSIDE SOURCES			TOTAL
			Cash	In-Kind	Subtotal	Cash	In-Kind	Subtotal	
1	SALARIES AND WAGES			\$4,880.20	\$4,880.20				\$4,880.20
2	FRINGE BENEFITS			\$1,366.46	\$1,366.46				\$1,366.46
3	CONTRACTED SERVICES	\$107,770.60							\$107,770.60
4	SUPPLIES AND MATERIALS								
5	COMMUNICATIONS								
6	TRAVEL								
7	RENT AND UTILITIES								
8	EQUIPMENT								
9	MISCELLANEOUS								
TOTAL		\$107,770.60		\$6,246.66	\$6,246.66				\$114,017.26

In electronic form this spreadsheet will automatically calculate the expense totals from the following Budget Detail Form.

Butte Waterline 2007 Summary Budget

COST ESTIMATE SUMMARY FORM

2008 BSB Water Line Replacement

Description	Total Price (\$)
Alabama Street Cost Estimate	\$60,857.50
Aluminum Street Cost Estimate	\$70,768.00
Atlantic Street Cost Estimate	\$32,100.25
Dexter Street Cost Estimate	\$19,090.00
Diamond Street Cost Estimate	\$147,300.90
Excelsior Avenue Estimated Cost	\$467,531.15
Emma Street Cost Estimate	\$70,689.55
Egro Street Cost Estimate	\$22,770.00
Illinois Street Cost Estimate	\$83,350.25
Indiana Street Cost Estimate	\$49,012.50
Michigan Street Cost Estimate	\$23,633.50
Pennsylvania Street Cost Estimate	\$24,793.50
Quartz Street Cost Estimate	\$95,666.55
Short Street Cost Estimate	\$26,960.00
Tecumsha Street Cost Estimate	\$60,406.25
Washington Street (South) Cost Estimate	\$45,502.75
Washington Street (North) Cost Estimate	\$118,827.35
Waukesha Street Cost Estimate	\$117,717.75
Miscellaneous Items Cost Estimate	\$553,526.00
 Total Estimated Cost	 \$2,090,503.75
Total Estimated Cost + 10%	\$2,299,554.13

Anaconda Waterline 2007 Summary Budget

PROJECT BUDGET SUMMARY FORM									
EXPENSE CATEGORY		UCFRB RESTORATION FUND	APPLICANT CONTRIBUTION			OUTSIDE SOURCES			TOTAL
			Cash	In-Kind	Subtotal	Cash	In-Kind	Subtotal	
1	SALARIES AND WAGES			\$9,746.94	\$9,746.94				\$9,746.94
2	FRINGE BENEFITS			\$2,729.14	\$2,729.14				\$2,729.14
3	CONTRACTED SERVICES	\$1,239,331.50		\$5,000.00	\$5,000.00				\$1,244,331.50
4	SUPPLIES AND MATERIALS						\$57,680.00	\$57,680.00	\$57,680.00
5	COMMUNICATIONS								
6	TRAVEL								
7	RENT AND UTILITIES								
8	EQUIPMENT								
9	MISCELLANEOUS								
TOTAL		\$1,239,331.50		\$17,476.08	\$17,476.08		\$57,680.00	\$57,680.00	\$1,314,487.58

In electronic form this spreadsheet will automatically calculate the expense totals from the following Budget Detail Form.

APPENDIX E

INPUT FROM THE:
ADVISORY COUNCIL,
DEPARTMENT OF INTERIOR, AND
CONFEDERATED SALISH AND
KOOTENAI TRIBES

**Appointed Members of the Upper Clark Fork River Basin
Remediation and Restoration Advisory Council
January 2007**

Name	Community	Representing
• Larry Curran, Chair	Butte	Silver Bow County
• Paul Babb	Butte	Silver Bow County
• Becky Guay	Anaconda	Deer Lodge County
• Dennis Daneke	Missoula	Missoula County
• Jim Dinsmore	Hall	Granite County
• Barbara Evans	Missoula	Missoula County
• Kathy Hadley	Deer Lodge	Deer Lodge County
• John Hollenback	Gold Creek	Powell County
• Sally Johnson	Missoula	Missoula County
• Milo Manning	Anaconda	Deer Lodge County
• Robbie Taylor	Butte	Silver Bow County
• James Yeoman	Anaconda	Deer Lodge County

In addition to the 12 citizen appointees, the following governmental representatives serve on the Advisory Council. (Note: the State representatives are non-voting members.)

Name	Representing
Mary Sexton	Montana Department of Natural Resources and Conservation (DNRC)
Jeff Hagener	Montana Department of Fish, Wildlife and Parks (MFWP)
Richard Oppen	Montana Department of Environmental Quality (DEQ)
James Steele, Jr.	Confederated Salish and Kootenai Tribes
Laura Rotegard	U.S. Department of Interior (DOI)

Advisory Council Purpose

The purpose of the Council is to advise the Governor as trustee of the State's natural resources pursuant to the federal and state Superfund laws with respect to issues involving restoration, replacement, or acquisition of the equivalent of the injured natural resources that are the subject of the litigation in the Upper Clark Fork River Basin, including the use of any funds that have been recovered from settlement or trial of the litigation.

Members of the UCFRB Trustee Restoration Council

Governor's Chief of Staff	DNRC Director
Attorney General ¹	MFWP Director
DEQ Director	Advisory Council Chairman

¹ The Attorney General is a non-voting member

UPPER CLARK FORK RIVER BASIN

REMEDIATION AND RESTORATION ADVISORY COUNCIL

Larry Curran, Chair
Butte

TO: Trustee Restoration Council

Paul Babb
Butte

FROM Larry Curran, Advisory Council Chairman

Becky Guay
Anaconda

DATE: August 15, 2007

Dennis Daneke
Missoula

RE: Advisory Council Preliminary Recommendations

Jim Dinsmore
Hall

The Remediation and Restoration Advisory Council considered input on the 2007 grant projects at their April, July, and August 2007 meetings, and visited the project sites during their June meeting. At their August 14, 2007 meeting, the Council voted to recommend approval of all eight 2007 grant applications at the requested amounts. The Council also voted to recommend increasing the cap from \$8.5 million to \$9.7 million in order to fund all the projects.

Barbara Evans
Missoula

Kathy Hadley
Deer Lodge

John Hollenback
Gold Creek

Attached is a summary of the input received, deliberations, and actions taken by the Council on the each of the eight grant projects at their August meeting.

Sally Johnson
Missoula

Milo Manning
Anaconda

Robbie Taylor
Butte

James Yeoman
Anaconda

Richard Opper,
Director
Dept. of
Environmental Quality

Jeff Hagener, Director
Dept. of Fish, Wildlife
and Parks

Mary Sexton, Director
Dept. of Natural
Resources and
Conservation

James Steele, Jr.
Confederated Salish &
Kootenai Tribes

Laura Rotegard
U.S. Dept of Interior

ADVISORY COUNCIL PRELIMINARY ACTION
ON 2007 GRANT PROJECTS

Summary of 8/14/07 Advisory Council Meeting specific to
Eight 2007 Large Grant Proposals

Silver Bow Creek Greenway: A motion to advance the project to the TRC with a positive funding recommendation passed 13-0. Applicant representative Dori Skrukrud expressed appreciation for support of the project. There was no additional Council discussion.

Milltown Sediment Removal: A motion to advance the project to the TRC with a positive funding recommendation passed 13-0. Rep. Jim Keane commented that whoever gets the contract for this grant work should be required to pay prevailing wages. Applicant representative Chris Brick, Peter Nielsen of Missoula County, and Dori Skrukrud of the Greenway Service District commented in support of the project. There was no additional Council discussion.

Thompson Park: A motion to advance the project to the TRC with a positive funding recommendation passed 12-1, with John Hollenback voting no. Area citizens Pete Madison, Ray Schotte, and Susan Schotte commented in support of the project, noting the value of the park and proposed improvements for public recreation and natural resources. Council discussion centered on concerns raised by John Hollenback that a better approach for Park improvements would be via the Forest Stewardship Program, which would more comprehensively address timber management than the proposed salvage sale. John noted that improvements had occurred since the 2003 proposal and that the plan for caretaker is encouraging. He believes that area citizens deserve this park but that the Forest Service should be contributing more. Sally Johnson and Dennis Daneke commented that, while they agreed with John that the forest stewardship project would be beneficial and appreciated his input, they would support the current proposal, with the hope that a stewardship project would be pursued.

Big Hole Transmission Waterline: A motion to advance the project to the TRC with a positive funding recommendation passed 13-0. The applicant commented in appreciation of support. Additional public input and Council discussion focused on the issue of prevailing wages. Rep. Jim Keane commented that Butte-Silver Bow (B-SB) should be paying prevailing wages. Dennis Daneke expressed his concern that B-SB was not paying prevailing wages for seasonal, temporary workers. Paul Babb of B-SB indicated that B-SB abides by the wages negotiated via collective bargaining with the unions. Jon Sesso of B-SB indicated he looked into this matter and that, except for the seasonal workers, B-SB pays above prevailing wages. He indicated B-SB will not be using seasonal workers on this project, which is to be conducted during the wintertime with regular crews. He added that, regardless of when the work is conducted, B-SB will not use seasonal, temporary workers on this project. Rep. Keane indicated he would be overseeing that this pledge by B-SB is met and would be reporting back to the Council on this matter. He wants to ensure that the same wage is paid for the same work. Dennis Daneke commented that with this information, he withdraws his concerns and supports the project.

Johnson/Cottonwood Creek: A motion to advance the project to the TRC with a positive funding recommendation passed 13-0. Applicant representative Renee Myers asked for support and noted the community's support for the increased recreational and educational opportunities the project would provide. Ron Hanson of Powell County commented on the value for the future stewards of the Basin and acknowledged the members of the County Commission and Parks and Recreation Board in attendance in support of the project. Colleen Elliott of the Clark Fork Watershed Education Program and Sen. Dave Lewis commented in support of the project. There was no additional Council discussion.

Anaconda Water Studies: A motion to advance the project to the TRC with a positive funding recommendation passed 13-0. Applicant representative Alden Beard of BETA Consulting expressed thanks to staff and Council for support and noted the studies would provide guidance to identifying the best bang for the buck. There was no additional Council discussion.

Butte Waterline Project: A motion to advance to the TRC with a positive funding recommendation passed 13-0. Rep. Jim Keane reiterated his message of assuring the same wage for same work. Applicant representative Jon Sesso of B-SB thanked the Council and staff for support and noted the project's good fit as a replacement project to compensate for injuries to groundwater from mining impacts. He indicated that B-SB intends to bid out the work and bid it out early enough in the year to get a competitive price.

Anaconda Waterline Project and Funding Cap Exceedance: A motion to advance to the TRC with a positive funding recommendation passed 12-1, with Mary Price voting no. A related follow-up motion to recommend increasing the funding cap to \$9.7 million passed 13-0.

Public and Council member input centered on why the project should be funded and the funding cap should be exceeded in order to fund this project. Individuals from the public providing input included Rep. Jim Keane, Rep. Dan Villa, applicant representative Alden Beard, Peter Nielsen of Missoula County, Sen. Dave Lewis, Deb Fassnacht of the Watershed Education Network, Rep. Jon Sesso, and Butte resident Steve Egeline. Council Members providing input included Barbara Evans, Dennis Daneke, Kathy Hadley, Robbie Taylor, Milo Manning, Sally Johnson, and Jim Yeoman. Reasons offered for support of the project and exceeding the cap by these individuals included:

- Program finances are in good condition. The principal is protected now and the Corpus is growing.
- Anaconda has been greatly impacted by mining and suffered more than Butte.
- The project serves as a replacement for a resource that was damaged.
- The work will cost more in the future due to inflation in the construction market; it is better to build it today than to wait until tomorrow. Funding the project now minimizes the impact of inflation. The price of materials increases faster than the interest rate.
- If you have the financial resources now, use them now to the maximum benefit of the people.
- It's cheaper to replace existing lines now than to develop a new source and fixing leaks will reduce the possibility of contamination impacting the well field.
- Funding it now saves dollars in the long-term.

- The project funding was approved once in 2005, but the County did not spend it due to lack of matching funds and the dollars that weren't spent continue to earn interest.
- The Anaconda community needs the funding and the Missoula community supports the Anaconda community.
- Caps are important to set but, after due consideration, this project is a critical one that should be funded by raising the cap.
- The project meets the legal threshold.
- Looking at the funding cap history, approved projects have totaled \$7.2 million less than the available funding cap set out in past years. The savings over the years covers the \$1.2 million need for this project.
- The project involves delivery of a clean, reliable water source that is critical to the community and deserving of funding.
- The project ranked low due to low matching funds, which Anaconda is not in a position to provide.
- Raising the cap will encourage more projects and accomplish more economic benefits to SW MT; don't be pennywise and pound foolish.
- Violating the cap won't have a detrimental effect.
- The cap was set in uncertainty and it is within the purview of the Council to recommend exceeding it. There is certainty with the community need for this project, thus it makes sense to go above the cap.
- The cap should be considered more of a guideline, since it is conservatively based on annual interest revenue estimates. Based on the total revenues, we are within in interest-spending policy with the recommended cap increase.
- The project involves clean drinking water for the community, similar to those funded by the Treasure State Endowment Program. The Legislative found other pots of money for the project requests to that Program that exceeded the cap; this is a similar situation.
- The Council pushed for a conservative spending policy given the unknown about the three remaining claims. While the caps are important to keep in the future, in this case, it should be exceeded.

Mary Price noted that the Tribes would not vote in support of the project because it was uncertain whether this project was the best use of the money, which is to be determined via the proposed water studies project, which they support. It's best to determine where the nuts and bolts are most needed. The Tribes support the Anaconda community and but also want to be fiscally responsible and see Restoration funds meet all needs in the most fiscally responsible way. The Tribes believe it is important to maintain the cap, which the Council voted for, and a change in the cap policy can be looked at for future years.

Carol Fox noted Mary's concerns regarding the cost-effectiveness of the Anaconda project accurately reflect the staff's analysis of this project. She reviewed why the staff made a recommendation within the funding cap, which is not just a guideline. The staff had a mandate to prepare funding recommendations and rank the projects and that is what was done. Having a cap provides for good competition. In the past, the Council has advocated even more conservative caps than the staff. The Council has an opportunity to consider changing this conservative policy when considered the cap for next year.

July 10, 2007 Advisory Council Meeting Summary

Attendees: All members present except for Jim Dinsmore.

Larry Curran provided a summary of the meeting purpose and logistics. Carol Fox announced the upcoming bird banding stations at several locations in the UCFRB.

2007 Pre-Draft Work Plan

NRDP staff summarized the criteria evaluations and pre-draft funding recommendations for the eight 2007 grant proposals. Following is a summary of the questions and discussions that occurred on each project, which were discussed in the order of NRDP ranking. Responses to questions are indicated with an “R.”

1. Silver Bow Creek Greenway: Greg Mullen presented the NRDP’s funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

Most questions about this project centered on the specifics of the proposed Golden Technologies acquisition and the current mining activities occurring on that property. The proposed acquisition is for about half, or 133 acres of the property, would cover the areas in the floodplain on both sides of the reconstructed Silver Bow Creek channel, and would be owned by the Greenway Service District. Sandi Olsen offered to obtain more information specific to the permit for the mining operation. The NRDP’s characterization of the project feasibility as “reasonably feasible” was clarified; Appendix F of the *Pre-Draft Work Plan* provides the guidance the NRDP follows specific to such criterion characterizations.

There was no public comment.

2. Milltown Sediment Removal project: Doug Martin presented the NRDP’s funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

Members asked questions about and requested clarification of the uncertainties associated with the incomplete negotiations with the ARCO, AIG, and Envirocon and about how the \$3.2 million in costs savings were considered in the proposal costs. R: The \$3.2 is an estimate of the costs these parties would not incur if the wastes were removed instead of being armored in an on-site repository. For example, they can save long-term operation and maintenance costs with a removal instead of repository option. These parties need to be willing to apply this estimated costs savings to the removal project; whether they will do so is unknown. The total removal project costs are \$6 million, with about \$2.8 million to be provided in Restoration Funds and the \$3.2 million to be provided from these parties.

It was suggested that EPA consider providing the \$3.2 million if these parties would not and that the \$3.2 million be considered as a project match. R: Whether EPA would contribute funding toward removal is unknown; EPA has approved the armoring of the sediments outside the floodplain. While the \$3.2 million was not proposed as match, it could be considered as direct

match as it would be used for the removal actions that are subject of the Restoration Fund request.

In response to questions about the project schedule, Doug indicated agreement needs to be reached next summer for the project to go due to timing of the rail spur work. The SAA IV & V sediments would be removed in summer 2008; the SAA IIIB sediments would be removed in summer 2009.

Other questions concerned what would happen if the negotiated price was higher than the proposed price. Re-submittal of a new application, partial removal, or no-action were options discussed.

Questions were asked about the rock embankment/armoring that is planned under remedy and why the SAA IIIB sediments were not going to be removed under remedial action since they have similar levels similar to the sediments being removed under remedy. R: The SAA IIIB sediments are not proposed for removal under remedy because the EPA determined removal of these sediments is not critical to groundwater cleanup. Under remedy, they will be armored outside of the floodplain to prevent downstream impacts.

There was no public comment.

3. Thompson Park project: Greg Mullen presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

John Hollenback commented that he looked into whether Thompson Park was part of the Basin Creek Forest Stewardship project, which was indicated on the site tour, and that it was not. He wanted to know why Thompson Park was not part of a stewardship project. He explained why being part of stewardship project would be better for the resources in the park in the long-term, giving the East Valley Forest Stewardship project as an example. John suggested Restoration Funds be used to getting a stewardship project going for the Park.

R: Steve Egeline, District Ranger for the Beaverhead Deer Lodge National Forest, explained that, while the planned salvage timber sale of beetle-kill trees is not currently a stewardship project, it can be set up so the proceeds would go to improvements in the Park, such as road improvements. The USFS started planning this salvage sale three years ago and they are under the gun to complete it because the value of the beetle-killed trees is decreasing. Once the NEPA process is complete on the timber sale, and before a contract is let for the sale, it can become a stewardship project. He indicated a future forest stewardship project with various entities could also occur that would address long-term management needs, such as partnership with the Folf Club. He noted the partnership the USFS and Butte-Silver Bow now have to address long-term maintenance is essentially a stewardship arrangement.

There was no public comment.

4. Big Hole Waterline project: Greg Mullen presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

Questions were asked about the design cost, whether Butte-Silver Bow would hire new crews to do the work, and whether less water would be taken out of the Big Hole as a result of this project. R: Total design costs are \$350,000, with \$77,000 to be provided in Restoration Funds and the rest to be provided by Butte-Silver Bow. Butte-Silver Bow will use existing crews, with the labor to be covered by their matching funds. It is possible but uncertain whether less water would be taken out of the Big Hole.

Dennis Daneke commented that he would like to see alternative sources for Butte's water supply be developed instead of the Big Hole River. R: Alternate supplies are being considered as part of the on-going Butte Master Plan project but prospects did not look good for another alternative to replace the Big Hole supply.

Public Comment: Peter Nielsen of Missoula County asked about whether all of the pipeline needed to be replaced. R: All of it needs to be replaced; this project would cover 10% of the line and what may be subject of future Restoration Fund requests is unknown. Peter suggested Butte look into other funding programs such as the Treasure State Endowment Program.

5. Johnson/Cottonwood Creek: Kathy Coleman presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

Questions were asked about the project contingency and whether coordination had occurred with Grant Kohrs Ranch. R: All the projects have cost contingencies that are typically a percentage of the total project costs. The applicant has coordinated with National Park Service on the connection to Grant Kohrs.

Milo Manning asked for clarification as to why this education project was not part of the programmatic contracted educational services. R: This project is beyond the Clark Fork Watershed Education Program baseline education program being handled as a contracted service. The educational portion of the project involves other grade levels and covers other activities. The *RPPC* policy change approved was for the baseline program to be provided by contracted services and other education projects to be considered via the grants process.

6. Anaconda Water Studies: Tom Mostad presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

Kathy Hadley asked about whether the studies are similar to the Butte study previously funded and whether they consider conservation in the broadest context such as looking at building codes that promote conservation. With the millions spent on fixing leaks, conservation should be considered to the broadest extent. R: The Butte study is similar to the Anaconda study. The studies will look at routine conservation, such as looking at metering needs, but not to the broadest extent possible, such as building codes.

Public Comment: Peter Nielsen of Missoula County suggested the studies look at water use, not just water supply. Irrigation uses for landscaping and other purposes are likely to be where limits on water uses are needed compared to commercial/industrial uses.

Alden Beard, consultant for ADLC, commented that the two proposed studies, combined with the rate study and water use studies, will address conservation in the broadest extent. These studies will determine the best way to get the most and wisest use of Anaconda's water supply.

7. Butte Waterline: Tom Mostad presented the NRDP's funding recommendation and criteria evaluation for this project. The NRDP recommends it for full funding.

In a response to a question, Tom clarified that the 15-year program would improve 30% of the leaking lines, not 30% of the total waterlines.

There was no public comment.

8. Anaconda Waterline: Tom Mostad presented the NRDP's funding recommendation and criteria evaluation for this project. While the NRDP considers this project merits full funding, it ranks last, which puts it over the allowable funding cap.

Questions were asked about the match that was not allowed and whether the work would be done in house. R: The proposed match of about \$57,000 for mine waste disposal at hazardous waste facility would not be actual costs incurred on the project since the waste will be disposed at the AR waste repository and Restoration Funds would cover the hauling costs to the repository.

A discussion and further questions ensued about the situation that this project would not be funded due its ranking and funding cap limitation. Barbara Evans advocated exceeding the funding cap so that is project could be funded and is willing to make a motion to do so. She sees it as a high priority, critical project to fund as it involves providing clean water. She noted that the staff recommended the project for funding and that is was the cap that prevents it from being funded and suggested that funding decisions not be tied to an arbitrary cap that was decided without knowing what needs exist. She believes the Governor would support exceeding the cap to fund this project. Robbie Taylor commented that she agrees with Barb.

Kathy Hadley commented on ADLC's inability to provide matching funds due to its poor economic situation, which is partly due to its Superfund site and contamination problems caused by mining. She noted the county almost went bankrupt. She would like the Council to consider the county's poor economic situation in its deliberation.

Dennis Daneke commented that he personally wants to see the project funded but is also concerned about exceeding the cap. He wondered whether an alternative exists where the county could get a loan or "water bond" that would be paid back via conservation via reduced water usage. Milo commented that metering is the answer to needed conservation. Carol responded that the *RPPC* does not provide such a loan/bond program and that we cannot rely on commitments of future government entities. She offered the example that the current ADLC administration's support for metering does not mean that system-wide metering will be implemented.

Questions were asked about why the waterline projects cost so much more than in the past and why the Anaconda Waterline ranked below the Butte waterline. R: Construction costs have increased significantly, plus the matching funds have decreased, which makes the benefit:cost relationship less favorable than in the past. The NRDP ranked the Anaconda waterline below the Butte waterline because of its lower match, because it augments normal government function to a greater extent based on matching funds and the other factors considered in this criterion, and because its higher costs per foot of line replaced.

In response to a follow-up question, Alden Beard, consultant for ADLC, explained that Anaconda costs were higher than Butte costs partly because of the bedding material needed material in Anaconda but not Butte and because Anaconda replaces all the service connections to the main line whereas Butte does not. He provided the history of recent bid awards compared to bid estimates and noted the use of past bids has been a good basis for the engineer's estimate.

Public Comment

Matt Clifford of the Clark Fork Coalition noted his agreement with Barbara Evan's comments supporting funding of the Anaconda Waterline project and exceeding the cap. He noted the conservative spending approach of the past years.

Peter Nielsen of Missoula County commented that he believes ADLC's approach to conserve water makes sense and that the project is a good use of funding.

Alden Beard, consultant for ADLC, asked for reconsideration of the proposed in-kind match for mine waste disposal and offered reasons why he disagreed with the staff's reduction of the proposed match from 5.7% to 1.4%. The disposal costs are not a "hard" cost to the project but would have been a cost if off-site disposal were required. ADLC used a similar approach for last year's approved project and thus provided precedent. He also noted the high number of support letters for the project, which were higher than documented support for other projects.

Sally Johnson noted her disagreement with the use of a theoretical match and that if such a match was allowed in the past, it was a mistake that should not be perpetuated. We should not allow match based on "what ifs." Tom Mostad added the match for last year was not presented as a theoretical match such as this year's match and that we need documentation of actual costs to verify match.

Jim Kuipers, technical advisor for ADLC, criticized the Staff's ranking determination, which he considers to be subjective and arbitrary. He questions ranking a project that involves affordable clean water higher than a recreation project. He does not like a ranking process that pits one project against another. He noted that the increased costs occurred due to substantial construction inflation that occurs with all projects. He also offered reasons why the theoretical match should be allowed. He believes that Butte's approach to not doing the service lines may result in problems and additional funding requests in the future. He provided background on the ADLC's company history and why ADLC does not have the tax base and resources to provide a match. ADLC does not have a redevelopment fund. He believes there are environmental justice issues involved.

Robbie Taylor commented that she wants to raise the cap to accommodate all the projects, which she believes are worth funding. ADLC is broke. She does not want our process to cause one community to fight against another. She suggested raising the cap with some criteria in place.

Laura Rotegard suggested criteria related to health and safety or criteria based on type of project.

Carol Fox responded that the funding program is not about health and safety but about improvements to natural resources and the public's use and enjoyment of those resources, that environmental justice issues did not pertain the staff's ranking decisions; and that the staff's ranking is based on the *RPPC* criteria and is not arbitrary. She provided a concluding presentation that summarized the pre-draft funding recommendation, explained the staff's ranking rationale, such as the greater weight the criteria give to restoration projects over replacement projects, and provided the history of the funding cap in past years. She noted that judgment calls are made in the ranking and that is a difficult process given the variety of projects and offered that the Advisory Council could also rank the projects.

Carol answered several questions about Restoration Fund finances and will provide an updated fund status report before the next meeting. She discussed the differences between the real interest and the nominal interest rates and will provide more background on those estimates at the next meeting.

Other Agenda Topics

Carol handed out background materials on three items that will also be subject of action at the August 14th Advisory Council meeting: a small grant proposal to conduct a pilot stream restoration/education project in Browns Gulch; a project development grant to develop an easement on the Vanisko Ranch in the East Deer Lodge Valley; and a proposed change in scope to the 2006 Anaconda Waterline project. There was no additional public comment and the meeting was adjourned.

The NRDP had not received input from the Tribes or DOI on the 2007 proposals before the July Pre-Draft document was issued. Their input will be added to the draft work plan document.

A summary of the Advisory Council's July and August meetings about the 2007 proposals and a summary of their draft funding recommendations will also be included in the draft work plan. Enclosed are notes from the April 2007 Advisory Council Applicant Symposium specific to the 2007 proposals.

April 17, 2007 Advisory Council Meeting

All members were present, except for Joe Hovenkotter, Dennis Daneke, John Hollenback, and Glenn Phillips.

Larry Curran called the meeting to order and introduced Mike McLane of FWP, who served as Glenn's alternate.

Staff Updates: Carol provided members with an update on the litigation funding bill, which passed both the House and Senate, and with background on the upcoming May 8th meeting in Bonner and the June 12th tours of proposal sites.

Applicant Symposium: Carol Fox explained the purpose and format of the Applicant Symposium. Members can request additional copies of applications by contacting Kathy Coleman. Carol will contact members regarding any desired follow-up questions of the applicants or the NRDP. The NRDP will then provide the Council with written responses before the Council's July meeting. Council members will have the opportunity to visit proposal sites in May and June.

Applicants for the nine 2007 grant-cycle proposals for greater than \$25,000 and the applicant for one small grant proposal of \$25,000 presented their projects to the Council. The Council will vote on the nine large projects in August and on the two small projects in May. The following is the summary of the questions and responses that followed each presentation, with responses indicated by an "R".

Butte Waterline Year 7: Presented by Jean Pentecost of Butte-Silver Bow

What percent of the total waterline is the 225,000 that will be replaced? R: Not all. It is just pipe that is over the injured bedrock aquifer. NRD money would replace about 39% of the total system.

How are the timing and bid issues resolved for this year? R: For the 2006 project, the bid went out in February and we got good numbers and have awarded the bid, with work starting in June.

Are you intending to bid out the 2007 project or complete it internally? R: We intend to bid it out, but we have planned for the alternative of doing the work in the application in case problems should arise again. This would need approval.

Your match has gone down from 25% in past years to 10%. Please explain that. R: We have a finite amount of money coming in and our revenue is down. That is why we are looking at our rate structure.

So, are your match monies going to waterlines that aren't covered by NRD funds? R: The 10% match is specific to the NRDP-funded waterline section, but separately we are funding other waterlines because we can't ignore the leak problems in areas south of the bedrock aquifer.

Big Hole Transmission Line: Presented by Jean Pentecost of Butte-Silver Bow

Where was the part of the transmission line you replaced? Feeley Hill to Butte? R: No, it was between the river and the treatment plant.

Are there more leak problems than are shown on the three red blocks on that map? R: Yes. One of the red blocks we just finished replacing. The map represented leaks from 1993. The whole pipeline is used and damaged and needs to be replaced.

What will be the service life of the new pipe? R: Up to 100 years under normal circumstances and that is without the additional plastic that we put on. Jean provided the manufacturer's handout.

Often there aren't normal conditions in Butte, so do you have any information on what the life will be with Butte's circumstances? R: Not definitely, but with the coating and the extra plastic, it should be right about that 100 year life span.

You indicated Butte will do the work. Will NRD be paying for materials and not labor? R: Yes. We're in the infancy stages of exactly how the money will be spent, so there may be some overrun, but most of the matching funds will be for the labor.

What percent of the entire pipeline will this replace? R: We're replacing 10,000 feet out of 116,000 feet, so about 10%.

Anaconda Waterline: Presented by Alden Beard of BETA Consulting, consultant for Anaconda Deer-Lodge County

Where is Anaconda in terms of water rates? Are they going up? R: Anaconda has initiated a comprehensive water study that is underway and enacted a 3 year phased water rate increase of 12% the last 2 years and an 11% increase in 2008, depending on what the study shows. The rate increase will put Anaconda above MT Dept. of Commerce affordability target rate affordability rate for state-wide water utilities.

What about meeting the target rate for a combined system? Anaconda's sewer rates are quite low, so it will not meet the combined system target rate; just its water rate will exceed the state-wide target.

Anaconda Water Metering & Distribution Study: Presented by Alden Beard of BETA Consulting, consultant for Anaconda Deer-Lodge County

If we know that metering saves water usage and we really don't need the users permission to put meters on, wouldn't it be more cost effective to just put the meters on? R: It could be approached that way. Even if you have a generalized idea of cost and what needs to be done, you still need to get the public on board with what is done. An organized group of nay-sayers can stop any project in its tracks.

If the data suggests that un-metered people use twice as much, couldn't you just charge them twice as much to encourage them to use less water? R: That may be an option that you see come out. Typically, metered users pay less and use less water than un-metered users.

Except for public education purpose, would this study be needed? R: I think so. There is a strong base out there that seems to oppose metering. With education, we may be able to sway them, through various materials and public meeting opportunities. We need to have a defensible basis to answer any questions that may come up during the public education process. The budget in the 2004 master plan was not enough to address all those issues. We need to nail down the types and costs of meters.

Thompson Park Improvement Project: Presented by Cindy McIlveen of Butte-Silver Bow

What are the other matching fund sources? R: The Forest Service (in-kind labor and cash match), NorthWestern Energy (solar lighting in tunnel), some state grants for recreational trails, The Forest Service will do all NEPA work associated with construction work.

What was the NRDP's evaluation of the normal government function criterion? R: Carol responded that the NRDP has not done the full evaluation of this application yet. Normal government function was a concern raised with the previous application. Cindy responded that maintenance costs are going to be there regardless and they are working to secure funds for that. If we relied solely on the regular internal budgets of government entities, these types of projects wouldn't get done. Both parties know we will need to secure outside funding.

How will you keep motorized vehicles off certain trails? R: Jocelyn Dodge of the Forest Service responded that this is an ongoing issue that they try to address by making sure they have other areas available to motorized vehicles, by signing, and by enforcing restrictions. The Forest Service has designated Thompson Park as a non-motorized special management area. They have worked with the motorized community to allow them to get from the Butte area to the motorized areas near and around Thompson Park.

What about the proposed timber sale in that area? R: The Basin Creek salvage sale is a proposed Forest Service Stewardship project that is current subject of a lawsuit. If that project goes forward, we could get rid of some of the pine-beetle infested timber and that would reduce the amount of the grant request.

What are the recent changes in the management plan that will allow the government to better take care of the Park? R: The plan was implemented in 2006. The Forest Service has agreed to co-manage the area along with Butte-Silver Bow. They will have the sheriff patrol the area. There will be a yearly review and an annual operations and maintenance plan to help with the management of the park. The popularity of the Park will increase, especially with the "Rails to Trails" aspect. With more exposure, it will be better cared for. The Forest Service has implemented some regulations to decrease the vandalism and is addressing the pine beetle infestation in the area. Also, they are increasing relationships with the public to help with clean up of the park. BSB is also re-evaluating their open space management plans in light of their recent land acquisitions such as the Big Butte.

Has anyone done a structural assessment of the trestle? R: Two years ago, an assessment was done. They are sound, with some limited improvements needed. They need to replace the railing. The tunnels were also inspected by an engineering firm. Overall, the tunnels and trestle are sound structurally.

Once the park is more available to the public, who is going to be responsible for the road maintenance? R: The Forest Service will be responsible for the primary roads and will work with the County road maintenance crew. We're planning on graveling the roads, replacing some culverts, and making improvements that will reduce maintenance.

Will the agreement have to be resigned every year? Can one partner back out? R: No, the management agreement is in place. We are just doing a yearly review to see who will do what work that year and that will be reflected in an annual operations and maintenance plan.

Were secured and unsecured monies counted in your matching funds? R: Yes, we will provide the breakdown to show which is secured and unsecured.

Comments:

Robbie Taylor commented that Butte has very few green spots for our citizens to enjoy due to all the areas impacted by mining. Thompson Park is within 3 miles of the city and we can offer that as a good replacement for lost recreation. It offers the bonus of improving Blacktail Creek. We will see more wildlife, birds and fish. The Park can be an outdoor classroom for the CFWEF for comparison to injured areas and to help understand what clean up does and what it means to the area.

Silver Bow Creek Greenway: Presented by Dori Skrukrud of the Greenway Service District.

Are you getting the bridges ahead of time? R: Yes, so they can be installed when the new stream channel is being constructed to lessen the disturbance of the Creek and coordinate with the remedy or even ahead of it with the design. Since this involves heavy equipment and machinery, it's something that can be blended with DEQ, while keeping the funding separated.

What is the reason for buying the Golden Technologies property and what is the goal of it? R: 120 acres of the 200 acre property is desired. Silver Bow Creek almost splits the property. There is some industrial activities, including gravel mining, on one side. The opposite side of the creek has been affected by the distribution of tailings in that area. The floodplain been cleaned up by DEQ, but not the stream corridor yet. If we acquire the area, we can meander the creek in a more natural fashion, plus add more plants. We do have the option to get an easement through a DEQ area on an adjoining property and put in the trail there.

You've only spent about half the funds that have been granted. Can you explain that? R: We have not spent on funding for the access features and some acquisitions. We've spent the funds that involve activities that need to be conducted in coordination with DEQ. There have been some land acquisition issues/obstacles, so we're keeping the funds available for those access issues. We're prepared to do a trail head at Whiskey Gulch and at Rocker. We are purchasing land from people who don't have it for sale and working out access easements. We spend a lot

of time talking to people about the impacts of selling their land to us and waiting for the day the construction ends.

Do you think you have enough money set aside to cover rising costs? R: Yes.

What about the complexities with RARUS railroad? R: We've been in negotiations with RARUS since 1998 and they are now going to be purchased by a party unknown. We've been in negotiations regarding all the places where an active railroad meets the trail, protecting the public from the railroad and vice versa. We've have negotiating for about 5 years working on a master agreement that covers every single potential incident that might happen when combining the public with an active railroad line. The legal documents must pass the muster of the county and state legal folks and we work closely with the NRDP legal staff and local county attorney to ensure the negotiations go the way we want them to. We're ready to work with the future owners.

Comments:

Sandi Olsen commented that it has also taken DEQ a long time to work with the railroads regarding clean up, so they can relate to how long it takes to work with the railroads. The safety issues come up.

Milltown Sediment Removal: Presented by Chris Brick of the Clark Fork Coalition.

You've budgeted for removing and transferring the wastes. How will you fix that hole that is left when you're done? R: Costs to reclaim the excavated area will be dovetailed into the State's restoration being done and be covered by the \$7.6 million earmarked for that. The money is already accounted for in the budget estimate.

Is this doubling the amount taken out? R: No, it's going from 2.1/2.2 million cubic yards to 2.6 million cubic yards.

How much additional rail traffic will that take? R: It will mostly lengthen the hours the trains run. It will not increase the number of trains per day.

I can understand EPA's reasoning for armoring the SAIII outside of the floodplain. But I don't understand why the upstream sediments would not have to be taken out under remedy because they are in the floodplain. R: Doug Martin responded that remedy is tied to the groundwater human health impacts. The upstream sediments do not have the volume or the concentration, nor are as connected to the aquifer, as the downstream sediments.

It looks like the stream goes right through there, won't that re-pollute the river? R: That isn't different from the State's perspective. These sediments need to be moved and/or removed to implement the State's restoration plan. Sandi Olsen added that once you change the stream hydrology, you've broken the pathway that is affecting human health, which is remedy's job. Restoration's job is to fix it.

How were the additional tailings discovered? R: NRDP did the testing as part of its revegetation studies and discovered the higher levels.

What about the part about saving the Defendant's money on p. 46? R: We're using those cost savings to come up with a number to take to Envirocon. We're trying to figure out what the net cost would be for the State to use for negotiation purposes. There could be some cost savings to Envirocon if the sediments are removed instead of armored in place.

What prompted you to bring the project this year? R: The dust issue at Opportunity was a factor. They moved up the rail spur schedule so that they can move the sediments to Opportunity and they can start revegetation sooner.

Does ADLC have a position on this project? R: Becky Guay responded that they do not have a position yet. It's a drop in the bucket regarding the waste that will be brought to the ARCO facility.

Comments:

Barbara Evans commented that EPA supports removing additional sediments. Milo commented that EPA is in support but is not funding it. Barbara noted EPA has been good to the Milltown.

Johnson Creek Greenway and Cottonwood Education Facility: Presented by Renee Myers, representing Powell County.

When Ron Hanson took us on a Cottonwood Creek tour, he said the greenway was to enhance the flood control, which had money from FEMA. What happens to Cottonwood Creek now? R: The landowners along Cottonwood Creek would not agree to a trail easement because it would take most of their backyards and also did not want to trail on Cottonwood for privacy reasons. So we switched the trail to Johnson Creek instead.

You're still getting money from FEMA for bridgework? This is the \$271,000 in match? R: Yes, the bridges are not structurally safe and need to be replaced. The Clark Street Bridge is by our fishing access and the other is by our education center.

There is no stream enhancement proposed on Johnson Creek? R: Not at this time. Johnson Creek does not have the fishery that Cottonwood Creek does, nor the flood problems that Cottonwood Creek does. There has been a lot of erosion on Cottonwood Creek around the structures. It is in need of flood mitigation.

Announcements/Follow-up

Carol encouraged members to provide follow-up questions to the Symposium. Members will also have the opportunity to ask questions during the site tours.

The next meeting will be May 8th and there will be a tour, along with deliberation on the Bonner Bridge Project and Little Blackfoot project. The Trustee Restoration Council meeting on these two projects will be on May 10, 2007 at 10:00 in Helena.

The meeting was adjourned.



United States Department of the Interior

NATIONAL PARK SERVICE
Grant-Kohrs Ranch National Historic Site
266 Warren Lane
Deer Lodge, Montana 59722

N-22

July 16, 2007

Carol Fox, Director
Natural Resource Damage Litigation Program
State of Montana
Department of Justice
P. O. Box 201425
Helena, MT 59620-1425

RE: USDOI Comments on 2007 Natural Resource Damage Restoration Fund Proposals

Dear Ms. Fox,

The United States Department of the Interior (USDOI) has reviewed the applications submitted for funding under the 2007 Upper Clark Fork River Basin Restoration Fund Grant Program. The focus of our review was two-fold: (1) how the projects might impact DOI properties, trust resources, or legislative responsibilities; and (2) the overall appropriateness of each project given the funding guidelines. Our comments on the reviewed applications are as follows:

- 1) Butte-Silver Bow County-Waterline Replacements-year 7
- 2) Butte- Big Hole Transmission Line Replacement
- 3) Anaconda-Deer Lodge County - Waterline Project –year 6
- 4) Anaconda-Deer Lodge County-Water Metering and Distribution System Monitoring Project
- 5) Butte-Silver Bow County- Thompson Park Improvements
- 6) Greenway District-Silver Bow Creek Greenway continuing restoration
- 7) Clark Fork Coalition-Milltown Sediment Removal Project
- 8) Powell County-Johnson Creek

1) Butte-Silver Bow County-Waterline Replacements-year 7

Requested amount: \$2,417,003

This project involves continued improvements to the Butte drinking water system. This is year 7 of a 15 year replacement project for lost ground water resources in the Butte area. Year 7 activities include replacing deteriorated drinking water distribution lines. Extrapolating over the 15 year period, the total cost of this project will be roughly \$30 million. DOI recommends that NRDP staff consider the total cost of this project, and that of the Anaconda infrastructure projects, in terms of the settlement funds recovered for groundwater injuries in these communities.

DOI does not object to the funding of this proposal.

2) Butte- Big Hole Transmission Line Replacement

Requested amount: \$1,644,722

This project involves continued improvements to the Butte drinking water system

DOI does not object to funding for this proposal.

3) Anaconda-Deer Lodge County - Waterline Project –year 6

Requested amount: \$1,239,332

This project involves continued improvements to the Anaconda drinking water system. This is the sixth consecutive year of ADLC water project funding requests. This project will upgrade drinking water lines. While this project does replace lost ground water resources in Anaconda, a comparison of total estimated project costs to the value of the settled injury claim would be useful in assessing the appropriateness and scale of future project funding, particularly in terms of establishing an appropriate total funding value relative to settlement.

DOI does not object to funding for this proposal.

4) Anaconda-Deer Lodge County-Water Metering and Distribution System Monitoring Project

Requested amount: \$107,771

DOI supports funding for this proposal.

5) Butte-Silver Bow County- Thompson Park Improvements

Requested amount: \$953,817

This project recovers lost services by supporting improvements in an unusually nationally legislated arrangement between USFS and the City of Butte in an area of the Clark Fork watershed that is well loved and well used as a regional park. The quality of this park is exceptional in its age and its national mandated intention and DOI finds this project in synch with the intent of the NRDP program.

DOI supports funding for this proposal.

6) Greenway District-Silver Bow Creek Greenway continuing restoration

Requested amount: \$2,111,194

This project is a continuation of the Greenway Trail Project and complements remedial action currently underway along Silver Bow Creek.

DOI supports this proposal for NRD funding.

7) Clark Fork Coalition-Milltown Sediment Removal Project

Requested amount: \$2,794,330

This is a project that is absolutely in line with the NRDP program. Too bad it wasn't funded through the actual remediation settlement.

DOI supports this proposal wholeheartedly.

8) Powell County-Johnson Creek Trail

Requested amount: \$ 608,015

This project has a strong interface with Grant-Kohrs Ranch National Historic Site. At this point in time, the design of this project is as a phase of a larger, planned trail system. This proposal has been designed to work co-operatively with the needs of the national park site. If, at such time, the larger system is brought to NRDP for funding, then Federal compliance requirements in the form of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) may need to be completed prior to approval under this program. Satisfied that this is understood by the current project design and planning team, DOI can support this proposal as it has been re-designed.

DOI does not object to funding for this proposal.

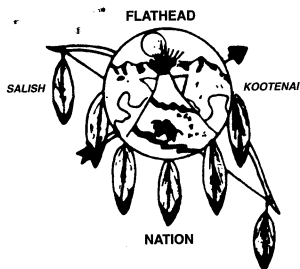
Thank you for the opportunity to review and comment on these proposals. If you have any questions, please contact me at 406-846-2070 ext. 221.

Sincerely,

Laura Rotegard
Superintendent

LR/ks

cc: Bill Olsen, USFWS
Greg Nottingham, NPS



Joseph E. Dupuis - Executive Secretary
Vern L. Clairmont - Executive Treasurer
Leon Bourdon - Sergeant-at-arms

THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD NATION

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July 25, 2007

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AUG 09 2007

NATURAL RESOURCE
DAMAGE PROGRAM

Carol Fox
Natural Resources Damages Program
1301 East Lockey
P.O. Box 201425
Helena, MT 59620-1425

Re: 2007 Upper Clark Fork River Restoration Work Plan.

Dear Ms. Fox,

I am writing to transmit comments regarding Tribal resources of special interest pursuant to the Memorandum of Agreement between the State, the Tribes, and the Department of Interior Regarding Restoration, Replacement or Acquisition of Natural Resources in the Clark Fork River Basin.

Butte / Anaconda Area Projects

Several of the projects in the Butte-Anaconda area appear to involve the physical disturbance of land. These projects are the:

- Silver Bow Creek Greenway
- Big Hole Transmission Line Replacement
- Butte Waterline Replacement.
- Anaconda Waterline Replacement
- Thompson Park Improvement Project

Because these projects will involve the disturbance of land, they may have the potential to affect areas or resources of special concern to the Tribes. Therefore we request award documents for these projects include the following suggest language:

“The Butte and Anaconda regions are Tribal traditional use areas and contain recorded prehistoric sites. Applicants are encouraged to be aware of the potential for encountering buried cultural features and/or artifacts during excavations.”

Because the U.S. Forest Service retains ownership of Thompson Park, federal laws pertaining to archeological and historical resources such as the National Historic Preservation Act would apply to the project in addition to the coordination and consultation provisions of the Memorandum of Agreement between the State, the Tribes, and the Department of Interior.

Milltown Sediment Removal Project

The Tribes, as a Trustee of the natural resources within the Upper Clark Fork River Basin are an active partner in developing the Restoration Plan for the Clark Fork River and Blackfoot River near Milltown Dam. The Tribes support restoration methods based on ecological design principles that view the floodplain and river as an integrated ecosystem. We believe removal of additional contaminated sediments from the floodplain, as described in the proposal, would enhance the natural processes that maintain a healthy river ecosystem and would contribute directly to actual restoration of injured natural resources. The proposal also shows a high level of coordination and integration with EPA remedial actions and the State's restoration actions.

As stated in the proposal, there are known Tribal Resources in the vicinity of the Milltown Reservoir but no known cultural resources within the proposed sediment removal areas. Provisions for historical mitigation during remediation and restoration are provided in the Programmatic Agreement and Historic Properties Management Plan.

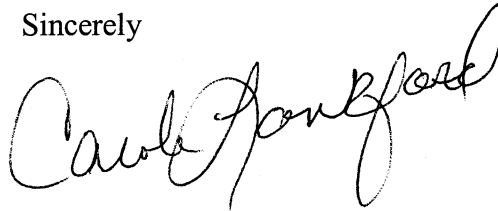
Johnson Creek Recreation Trail and Cottonwood Creek Education Center

The Tribes support the project with the understanding the Natural Resources Damages Program will assist the applicant with refining the design and construction of parking areas and trails to avoid adverse impacts to riparian areas. Because the project will involve the disturbance of land there may be potential to affect areas or resources of special concern to the Tribes. Therefore we request the award document for this project includes the following suggest language:

“The Deer Lodge region is a Tribal traditional use area and contains recorded prehistoric sites. Applicants are encouraged to be aware of the potential for encountering buried cultural features and/or artifacts during excavations.”

Thank you for your continuing cooperation regarding resources of special interest to the Tribes. The Tribes point of contact for these issues is Mary Price, Staff Scientist, Tribal Legal Department, (406) 675-2700, extension 1167.

Sincerely

A handwritten signature in cursive script, appearing to read "Caleb Steele", written in black ink.

James Steele, Jr.

Chairman – Tribal Council

mbp

APPENDIX F

APPLICATION REVIEW
GUIDELINES

APPENDIX F

UCFRB RESTORATION GRANTS

APPLICATION REVIEW GUIDELINES

Introduction

The March 2002 *UCFRB Restoration Plan Procedures and Criteria (RPPC)* provides the framework for expending Restoration funds and describes the criteria to be used to evaluate Restoration Grant Projects. To help in these evaluations, the NRDP developed the following Application Review Guidelines based on the *RPPC*. These Guidelines categorize the likely manner in which restoration projects meet or address a particular criterion. For example, for technical feasibility, projects are categorized as reasonably feasible, uncertain feasibility, or not feasible. These categories provide a framework to assist in evaluating and comparing projects consistently. Reviewers should note that it is the explanatory text for each criterion provided in the detailed Project Criteria Narratives, not the titles provided in this guidance to categorize projects that forms the basis of judging how well a project addresses a particular criterion. The titles/headers should not be misconstrued to denote a certain level of ranking or adequacy in meeting the *RPPC* criteria.

STAGE 1 CRITERIA REQUIRED BY LEGAL CONSIDERATIONS

1. TECHNICAL FEASIBILITY

General Considerations: Reviewers should bear in mind that the ultimate question to be answered under this criterion is: To what degree is the project likely to achieve its objectives? As per DOI regulations, “Are the technology and management skills necessary to implement the project well known and does each element of the plan have a reasonable chance of successful completion in an acceptable period of time?” To evaluate both the technology aspects and management aspects, the application asks for a scope of work as well as information regarding successful application of the selected technology to similar sites. We are not just evaluating whether a particular technology has been successfully applied in the past, but also whether it will work as applied to this particular project as planned by the applicant.

Reasonably Feasible: The following descriptions apply to a project that is “Reasonably Feasible.”

- The project employs well-known and accepted technology in design, engineering and implementation components of the project, and/or;
- The project applicant demonstrates that any innovative technologies proposed in the project are reasonably likely to achieve their stated objectives.
- Any uncertainties/issues requiring future resolution associated with the project are insignificant.

- There is a reasonable degree of confidence that the technologies proposed to be utilized in the project (whether well-known and accepted or experimental or innovative) can be applied to the project site to achieve their stated objectives.
- The project applicant demonstrates management skills necessary to implement the technologies at the project site in an acceptable period of time.

Based on these findings, the project is “Reasonably Feasible,” and is therefore reasonably likely to achieve its objectives.

Uncertain Feasibility: If any of the following descriptions apply to a project that otherwise satisfies the description of a “Reasonably Feasible” project, then the project is of “Uncertain Feasibility.”

- It is uncertain whether any innovative or experimental technologies proposed in the project are likely to achieve their stated objectives.
- There are many or significant uncertainties associated with the project that require future resolution.
- It is uncertain whether the technologies proposed to be utilized in the project (whether well-known and accepted or experimental or innovative) can be applied to the project site to achieve their stated objectives.
- It is uncertain whether the project applicant demonstrates management skills necessary to implement the technologies at the project site in an acceptable period of time.

Based on these findings, the project is of “Uncertain Feasibility,” and therefore the likelihood of the project achieving its objectives is uncertain.

Not Feasible: The conclusion that a project is “Not Feasible” may be based on one or more of several possible findings, including:

- Technologies (or a technology) proposed in the project are (is) not likely to achieve their (its) stated objectives.
- The project applicant does not demonstrate management skills necessary to implement the technologies (technology) at the project site in an acceptable period of time.

Based on these findings, the State concludes that the project is “Not Feasible,” and therefore not likely to achieve its objectives.

2. RELATIONSHIP OF EXPECTED COSTS TO EXPECTED BENEFITS

General Consideration: Pursuant to this criterion, reviewers should evaluate to what extent a project's costs are commensurate with the benefits it provides. All costs and benefits, both direct and indirect, should be considered in this evaluation. Costs include monetary and other costs associated with the project. Because some project benefits and costs may be hard to quantify, reviewers should not attempt to assign a monetary value to all costs and benefits.

Note: Because this criterion involves a weighting of all public natural resource and service benefits expected to be derived from a project against all costs associated with the project, it is suggested that reviewers undertake this evaluation only after completing all other Stage 1 and Stage 2 criteria evaluations. If the project is part of a larger project, reviewers should evaluate the costs/benefits from the perspective of the benefits the project achieves by itself and its costs, as well as the benefits of the larger project and its costs. This criterion will ultimately be used to relatively compare projects. At this stage, however, the evaluation is confined to assessing the degree to which the project's costs are commensurate with the project's benefits.

High Net Benefits: Project benefits significantly outweigh/exceed costs associated with the project.

Net Benefits: Project benefits outweigh/exceed costs associated with the project.

Commensurate Benefits and Costs: Project benefits are generally commensurate with, or proportionally equal to, costs associated with the project.

Net Costs: Project costs outweigh/exceed benefits to be gained from the project.

High Net Costs: Project costs significantly outweigh/exceed benefits to be gained from the project.

Uncertain: There are some uncertainties to the project that lend variability to the cost:benefit relationship or there is an insufficient basis upon which to judge this relationship.

3. COST-EFFECTIVENESS

General Consideration: The analysis of cost effectiveness evaluates whether a particular project accomplishes its goals the least costly way possible, or whether there is a better alternative. For example, if the project replaces a service, is this the most cost-effective way to replace that service? In our application guidelines, we asked applicants to provide:

1. A description of alternatives to the proposed project that were considered, including the no-action alternative;
2. A comparison of the benefits and costs of each alternative (to the extent possible); and

3. Justification for the selection of the preferred alternative.

Note: Whereas the previous criterion compared all of the costs and benefits associated with the project as proposed by the applicant, this criterion requires reviewers to compare the project as proposed with alternative methods of accomplishing the same or substantially similar goals. Reviewers should not limit this evaluation to the alternatives discussed by applicants. If the applicant does not discuss an obvious alternative, reviewers should consider that alternative in reaching their conclusions on cost-effectiveness.

Cost Effective: The applicant provides a complete and thorough analysis and the selected alternative is most cost-effective.

Likely Cost Effective: Although the applicant only provided a limited analysis of alternatives, the State concludes that the selected alternative is likely to be cost-effective.

Not Cost Effective: A suitable alternative exists that will produce the same or similar level of benefits, but at significantly lower costs.

Uncertain: Insufficient information is available to conclude that the selected alternative is likely to be cost-effective.

4. ENVIRONMENTAL IMPACTS

General Consideration: To what degree will the project adversely impact the environment? Reviewers will evaluate to what degree the applicant has properly identified and addressed any potential short-term or long-term adverse impacts that significantly affect the quality of the human environment. For Montana Environmental Policy Act (MEPA) compliance, we will need to assure that all adverse environmental impacts and reasonable alternatives have been adequately characterized and considered during decision-making. If this assurance is uncertain, we may conduct some further evaluation or seek supplemental information.

Note: In the application, we divided our information requests to applicants regarding the impacts to the human environment into “environmental impacts” and “human health and safety” components. In this section, reviewers should consider applicant responses in the “environmental impacts” section as set forth in the application. In the following section, reviewers should consider applicant responses in the “human health and safety” section as set forth in the application. For assistance with MEPA terminology, please refer to Attachment A.

No Adverse Impacts: Without mitigation, the project presents no potential adverse impacts, either significant or minor, to the environment.

No Significant Adverse Impacts: Without mitigation, the project presents no potential significant adverse impacts to the environment. The project involves the potential for some minor adverse environmental impacts that do not rise to the level of significance.

Short-Term Adverse Impacts with Mitigation: The project presents potential significant short-term adverse environmental impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse environmental impacts to below the level of significance. Mitigation that reduces significant adverse environmental impacts to below the level of significance results in a finding of no significant adverse impacts.

Long-Term Adverse Impacts with Mitigation: The project presents potential significant long-term adverse environmental impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse environmental impacts to below the level of significance. Mitigation that reduces significant adverse environmental impacts to below the level of significance results in a finding of no significant adverse impacts.

Significant Adverse Impacts with Insufficient Mitigation: The project presents potential significant adverse environmental impacts, either short-term or long-term, and includes no (or insufficient) mitigation measures to reduce the otherwise significant impacts to below the level of significance.

5. HUMAN HEALTH AND SAFETY IMPACTS

General Consideration: To what degree will the project have an adverse impact on human health and safety? If this is uncertain, further evaluation may be conducted or supplemental information may be gathered.

No Adverse Impacts: Without mitigation, the project presents no potential adverse impacts, either significant or minor, to human health and safety.

No Significant Adverse Impacts: Without mitigation, the project presents no potential significant adverse impacts to human health and safety. The project involves the potential for some minor adverse human health and safety impacts that do not rise to the level of significance.

Short-Term Adverse Impacts with Mitigation: The project presents potential significant short-term adverse human health and safety impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse human health and safety impacts to below the level of significance. Mitigation that reduces significant adverse human health and safety impacts to below the level of significance results in a finding of no significant adverse impacts.

Long-Term Adverse Impacts with Mitigation: The project presents potential significant long-term adverse human health and safety impacts. Mitigation measures, however, are included in the project that reduce otherwise significant adverse human health and safety impacts to below the level of significance. Mitigation that reduces significant adverse human health and safety impacts to below the level of significance results in a finding of no significant adverse impacts.

Significant Adverse Impacts with Insufficient Mitigation: The project presents potential significant adverse human health and safety impacts, either short-term or long-term, and includes

no (or insufficient) mitigation measures to reduce the otherwise significant impacts to below the level of significance.

6. RESULTS OF SUPERFUND RESPONSE ACTIONS

(Readily Available Information)

General Consideration: This criterion considers the results, either existing or anticipated, of completed, planned, or anticipated (if there is a reasonable measure of confidence in the anticipated action) UCFRB Superfund response actions. To what degree would the project be consistent with, augment or, alternately, interfere with or duplicate the results of such actions, including Superfund investigations and evaluations?

Note: A finding of inconsistency with response actions will usually, but not always, mean that the action is inappropriate or unjustifiable. As stated in the RPPC, the State will tend to favor projects that augment response actions rather than undo a response action. If, however, the State considers a response action to be ineffective and non-beneficial, then interference or inconsistency with the response action may positively improve restoration of natural resources to baseline. This should be assessed on a case-by-case basis. If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Positive Coordination: The project coordinates with and augments the results of an effective Superfund action(s).

Consistent: The project may or may not augment the results of an effective Superfund response action(s), but it will not interfere with or duplicate the results of such an action(s).

Inconsistent but Potentially Beneficial: The project would interfere with or duplicate the results of an ineffective Superfund action(s).

Inconsistent: The project would interfere with or duplicate the results of an effective Superfund action(s).

7. RECOVERY PERIOD AND POTENTIAL FOR NATURAL RECOVERY

(Readily Available Information)

Note: If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

General Consideration: Will the proposed restoration project affect the time frame for recovery of the injured resource and if so, to what degree? In addition to information presented by the project applicant, reviewers should rely on the 1995 Restoration Determination Plan and backup injury assessment reports to estimate natural recovery potential for injured resources

addressed by the project. For projects that involve actual restoration of natural resources and, consequently, services, this criterion aims at determining just how well the project enhances the recovery period – does it significantly hasten that recovery? This criterion also evaluates the potential for natural recovery of an injured resource. If a resource is expected, on its own, to recover in a short period of time, a restoration action may not be justified.

Note: Given that the State recovered damages for past lost value of natural resources and services, it is not critical that all replacement projects consider the potential for recovery of the injured resource or services being replaced. This consideration may be relevant, however, when comparing replacement projects and relatively weighing the necessity of replacing one service or resource over another. For example, one project may replace services that will recover naturally in one year, while another project replaces services that will not recover naturally for 500 years. Depending on the service or natural resource replaced, the State may favor one of these projects over the other, based on the fact that the services or natural resources replaced will naturally recover in a short period of time for one project and not the other. For this reason, reviewers should consider recovery potential in the context of replacement projects.

Reduces the Recovery Period: The project enhances recovery potential of the injured resource and/or services provided there by reducing the time in which they will recover to baseline.

Note: This is a qualitative evaluation that should be assessed on a scale ranging from slight enhancement to complete restoration/replacement to baseline.

May Reduce the Recovery Period: It is possible but not certain that the project may reduce the time in which the injured resources and/or services provided thereby will recover to baseline.

No Effect on Recovery Period: The project most likely will not change the time frame for recovery.

Increases Recovery Period: The project diminishes recovery potential of the injured resource and/or services provided thereby by lengthening the time in which they will recover to baseline.

8. APPLICABLE POLICIES, RULES AND LAWS

(Readily Available Information)

General Consideration: To what degree is the project consistent with all applicable policies of state, federal, local and tribal government, including the *RPPC*, and in compliance with applicable laws and rules, including the consent decree?

The application requested information from applicants regarding four sub-issues: (1) permits obtained and any other permits required to complete the project, including pertinent dates; (2) deeds, easements or right-of-way agreements required to complete the project; (3) communication and coordination with local entities; and, (4) the effect, and consistency/inconsistency with other laws, rules, policies, or consent decree requirements. The State may

supplement applicant's information to the extent necessary to assess consistency with applicable policies and compliance with applicable laws and rules.

Note: For this criterion, applicants for projects over \$10,000 were only required to submit readily available information. Applicants for projects of \$10,000 or under were not required to address this criterion. Thus, the State may need to supplement information to evaluate this criterion. If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Consistent/Sufficient Information Provided: The applicant has provided sufficient information to make the following determinations:

- All permits necessary to complete the project on schedule are identified and obtained, or reasonable assurance is provided that they will be obtained.
- All deeds and easements or rights-of-way necessary to complete the project on schedule are identified and obtained, or reasonable assurance is provided that they will be obtained.
- As necessary, the applicant has demonstrated that communication and coordination with local entities has occurred, or reasonable assurance is provided that such communication and coordination will occur.
- The applicant has demonstrated measures taken to comply with, and that the project is otherwise consistent with, other laws, rules, policies, or consent decree requirements.

Consistent/Insufficient Information Provided: Based on information provided by applicant and supplemented by the State on Attachment B, it has been demonstrated that the project is consistent as described above.

Inconsistent: After supplemental information has been obtained by the State (if necessary), the State concludes that the project may not be implemented consistent with policies of state, federal, local and tribal government, including the *RPPC*, or in compliance with applicable laws and rules, including the consent decree.

9. RESOURCES OF SPECIAL INTEREST TO THE TRIBES AND DOI

(Readily Available)

General Consideration: Are any of the following located in the vicinity of the proposal? This criterion will require NRDP consultation with Tribes and DOI. For affirmative response, indicate whether the project may have a positive or negative impact on Tribal cultural resources or Tribal religious sites (as defined in the MOA) and/or natural resources of special environmental, recreational, commercial, cultural, historical, or religious significance to the Tribes or DOI. Projects of potential negative impact require special consideration according to the provisions of the MOA. If necessary, reviewers should utilize the form attached as

Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Beneficial Impact: Project will have or may have beneficial impacts on these special sites/resources.

No Impact: Project has no adverse impacts on these special sites/resources.

Minor Adverse Impact: Project has potential minor adverse impacts on these special sites/resources but protective measures have been integrated or can be easily integrated without significant project changes.

Major Adverse Impact: The project has potential major adverse impacts on these special sites/resources that will require further consideration under terms of the MOA.

STAGE 2 CRITERIA REFLECTING MONTANA POLICIES

10. PROJECT LOCATION

General Consideration: This criterion requires evaluation of the geographic proximity of the project to the injured resources it proposes to restore or replace. The *RPPC* and application instructions express a preference for restoration (or replacement) projects that occur at or near the site of injury, with the exception of Big Blackfoot River native trout restoration or replacement activities (see specific instructions below). There is no absolute scale of distance to determine proximity. Rather, proximity may be judged independently for each project, depending on a number of factors including the natural resource injury addressed and the geographic extent of benefits that may accrue from the project.

Specific instructions regarding Big Blackfoot River native trout restoration or replacement activities: For projects on the Big Blackfoot River watershed outside of the Milltown Dam area that an applicant states are intended to restore native trout that cannot, from an economic or practical standpoint, be restored in the UCFRB, categorize the project into the “Big Blackfoot Exception” below. Analyses conducted pursuant to other criteria will determine whether the project will actually accomplish what it says it will. For the purposes of the “Big Blackfoot Exception” only, rely on applicant’s statement for this criterion.

Within Basin and Proximate: All or most of the restoration or replacement activities associated with this project will be conducted at or reasonably near the site of natural resource injury to be addressed through the project.

Within Basin and Proximate/Other: Some of the restoration or replacement activities associated with this project will be conducted at, or reasonably near, the site of natural resource injury to be addressed through the project. Some of the restoration or replacement activities associated with this project will be conducted at other locations away from the site of natural resource injury to be addressed through the project.

Within Basin: All or most of the restoration or replacement activities associated with this project will be conducted at a location that is within the UCFRB but away from the site of natural resource injury to be addressed through the project.

Big Blackfoot Exception: Applicant states that this project proposes native trout restoration or replacement activities located in the Big Blackfoot River watershed which cannot, due to practical or economic considerations, be conducted within other areas of the UCFRB.

Not Applicable: The project is a research or monitoring project.

11. ACTUAL RESTORATION OF INJURED RESOURCES

General Consideration: The *RPPC* states that actual restoration of the resources that are injured should be given priority. This criterion requires evaluation of whether, and to what extent, the project will restore injured natural resources that were the subject of the Montana v. ARCO lawsuit.

Note: The term “restore” under this criterion is used in its specific meaning, i.e., actions are designed to return injured resources and services provided thereby to baseline conditions or accelerate the natural recovery process.

Restoration: All aspects of the project are intended to accomplish restoration of an injured natural resource.

Restoration/Other: Some aspects of the project are intended to accomplish restoration of an injured natural resource.

Contributes to Restoration: Although the project is not intended to directly accomplish restoration of an injured natural resource, some aspects of the project contribute to the restoration of an injured natural resource.

May Contribute to Restoration: Although the project is not intended to directly accomplish restoration of an injured natural resource, some aspects of the project may contribute to the restoration of an injured natural resource.

No Restoration: The project is not intended to accomplish restoration of an injured natural resource, nor is it likely to contribute to restoration of an injured natural resource.

12. RELATIONSHIP BETWEEN SERVICE LOSS AND SERVICE RESTORATION

General Consideration: The *RPPC* states that proposed restoration projects (general sense) that closely link the services that are the project’s focus with the service flows that have been impaired, will be favored over projects that do not. To address this criterion, reviewers should examine the connection between the services that a project seeks to provide or augment and the services lost or impaired as a result of natural resource injuries.

Note: Complex projects may involve a combination of the following categories. Reviewers should note which aspects of each project fall into each of the categories.

Same: The services restored or augmented by the project are the same or substantially equivalent to services lost or impaired due to natural resource injury.

Similar: The services restored, augmented, or replaced by the project are not the same or equivalent to, but are similar to those lost or impaired due to natural resource injury.

Dissimilar: There is no connection between the services lost or impaired and the services provided or augmented by the project.

13. PUBLIC SUPPORT

General Consideration: What is the extent of public support for the project demonstrated in the application?

For this criterion, the State will identify the number of letters received by the State in either support or opposition to the project and identify the entities providing these letters. The evaluation conducted pursuant to these instructions is based exclusively on information available at the time of the evaluation, which is primarily the letters of support provided in an application. Subsequently, public support may be demonstrated throughout the funding selection process (e.g., at the pre-draft and draft review stages). This evaluation will need to be updated at each stage in the funding selection process. Public comment may demonstrate further support, opposition, or a mixture of support and opposition.

14. MATCHING FUNDS

General Consideration: To what extent does the project entail cost sharing?

For this criterion, the State will identify the amount of matching funds and indicate how much are cash contributions and how much are in-kind contributions. The State will calculate matching funds by determining the percentage of the total project costs for activities under the project's scope of work to be funded by other sources besides Restoration funds. For projects that are part of a larger project for which future funding will be sought, the State will only consider the matching funds dedicated to the phase of the project that is to be funded by Restoration funds. For land acquisition projects, the State will accept as matching funds payments or donations that make up the difference between the funding request and the appraised value.

Note: If necessary, reviewers will need to consult matching fund entities to determine the likelihood of matching funds. The State's determination of matching funds will not always match the applicant's determination.

15. PUBLIC ACCESS

General Consideration: This criterion evaluates whether a project will affect public access and the positive or negative aspects of any increased or decreased public access associated with the project. Public access is not required of every project, nor is it relevant to all projects.

Increased Access Beneficial: The benefits from the new or enhanced public access created by the project outweigh the adverse impacts associated with this increased access.

Increased Access Detrimental: The adverse impacts associated with new or enhanced public access created by the project outweigh the benefits associated with increased access.

No Access Beneficial: While public access is relevant and could have been a project component, increased access would have been detrimental to the restoration of injured or replacement natural resources in the long-term.

No Access Change: The existing acreage and methods of public access would not change as a result of the project.

Not Relevant: Public access is not a component of the project, nor is it relevant to the project.

16. ECOSYSTEM CONSIDERATIONS

General Consideration: This criterion examines the relationship between the project and the overall resource conditions of the UCFRB. The State will favor projects that fit within a broad ecosystem concept in that they improve a natural resource problem(s) when viewed on a large scale, are sequenced properly from a watershed management approach, and are likely to address multiple resource problems.

Positive: The project positively fits within a broad ecosystem concept in that it improves a natural resource problem when viewed on a large scale, and/or is sequenced properly from a watershed management approach, and/or addresses multiple resource problems. This category would apply to projects in the Silver Bow Creek watershed that are consistent with the priorities established in the *Silver Bow Creek Watershed Restoration Plan*.

Negative: The project does not fit within or is inconsistent with a broad ecosystem concept and this makes it less likely to be effective in the long-term. The project is one that should wait from an ecosystem standpoint until certain environmental conditions occur. For example, problems in the upper portion of a watershed may need to be corrected first before work is conducted downstream. This category would apply to projects in the Silver Bow Creek watershed that are inconsistent with the priorities established in the *Silver Bow Creek Watershed Restoration Plan* and for which insufficient justification has been provided on why it should be funded anyway.

Not Relevant: The project is a service project for which ecosystem considerations are not relevant.

17. COORDINATION AND INTEGRATION

General Consideration: How well is the project planned to integrate with other ongoing or planned actions in the UCFRB? This criterion addresses coordination with other projects besides remedial actions, which is addressed under Criterion #6. Restoration projects that can be efficiently coordinated with other actions may achieve cost savings.

Coordinates/Integrates: The project coordinates and achieves efficiencies not otherwise possible through coordination with other actions (besides remedial actions).

None: The project does not coordinate/integrate with other actions.

Conflicts: Project may interfere with significant, beneficial on-going or planned actions or is one with missed coordination opportunities.

18. NORMAL GOVERNMENT FUNCTIONS

(Readily Available Information)

General Consideration: The *RPPC* states those activities, for which a governmental agency would normally be responsible or that would receive funding in the normal course of events, (absent the UCFRB Restoration Fund) will not be funded. The Restoration Fund may be used, however, to augment funds normally available to government agencies to perform a particular project if such cost sharing would result in implementation of a restoration project that would not otherwise occur through normal agency function. For this criterion, reviewers should determine whether the project is intended to accomplish activities that would otherwise not occur through normal agency function.

Note: If necessary, reviewers should utilize the form attached as Attachment B to record any additional information pursuant to this criterion not included in the application and required for complete evaluation of the project.

Outside Normal Government Functions: The project does not involve activities normally conducted by government agencies or obligations of governmental entities under law for which they receive funding or for which they are responsible for securing funding.

Within but Augments Normal Government Functions: The project involves activities that are normally conducted by governmental agencies, but it augments such activities beyond a level required by law and for which funding is presently insufficient to implement the project. This category would apply to activities for which government agencies typically seek funds outside of their normal operating funds, such as supplemental grant funds.

Replaces Normal Government Functions: The project involves activities that are typically funded through a government's normal operating funds or obligations of governmental entities under law.

STAGE 2 CRITERIA – LAND ACQUISITION PROPOSALS ONLY

19. DESIRABILITY OF PUBLIC OWNERSHIP

General Consideration: This criterion assesses the potential benefits and detriments associated with putting privately owned land, or interests in land, under public ownership. Although the State has established a policy that favors actions that actually improve the condition of injured resources and services, land acquisition may be an appropriate replacement alternative.

Restoration Beneficial: The benefits of the acquisition to restoration of injured natural resources and services are considered major and the detrimental aspects of public ownership, if any, are considered minor.

Replacement Beneficial: The benefits of the acquisition to replacement natural resources and services are considered major and the detrimental aspects of public ownership, if any, are considered minor.

Detrimental: The detrimental aspects of putting privately owned lands into public ownership outweigh the benefits derived to public natural resources and services derived from the project.

20. PRICE

General Consideration: To what extent is the land/interest being offered for sale at fair market value?

Reasonable: Documentation indicates property is being acquired at or below fair market value.

High: Documentation indicates property is being acquired above market value.

Uncertain: Insufficient information is available at this time for comparison to fair market value.

STAGE 2 RESEARCH AND MONITORING CRITERIA

These criteria apply to any research activity, whether or not it constitutes the entire project or a portion of the project. These criteria also apply to projects for which monitoring is a significant focus of the project, but not to projects that simply have a monitoring component tied to judging the project's effectiveness. Through minimum qualification determinations, we have already established that the proposed research or monitoring project pertains to restoration of injured natural resources in the UCFRB. These two criteria are designed to distinguish the level of benefits these projects will have on restoration of injured natural resources.

21. OVERALL SCIENTIFIC PROGRAM

General Consideration: To what extent is the monitoring or research project coordinated or integrated with other scientific work in the UCFRB?

Coordinates: The project will augment and not duplicate past and on-going scientific work, focusing on existing data gaps. The applicant has also demonstrated thorough knowledge of and coordination with other scientific work in the Basin.

Does not Coordinate: The project does not involve any coordination or integration with other scientific work in the Basin or may be duplicative.

Uncertain: Insufficient information has been provided to determine the level of coordination/integration with other scientific work in the UCFRB.

22. ASSISTANCE WITH RESTORATION PLANNING

General Consideration: To what extent will this project assist with future restoration efforts?

Major Benefits: The project will be of major benefit to future restoration efforts in terms of needed information on the status and condition of natural resources and recovery potential/constraints or assistance with restoration project planning, selection, implementation, and monitoring.

Moderate Benefits: The project will be of moderate benefit to future restoration efforts in terms of needed information on the status and condition of natural resources and recovery potential/constraints or assistance with restoration project planning, selection, implementation, and monitoring.

Minor Benefits: The project will be of minor benefit to future restoration efforts in terms of needed information on the status and condition of natural resources and recovery potential/constraints or assistance with restoration project planning, selection, implementation, and monitoring.

ATTACHMENT A

MEPA Terminology

The Montana Environmental Policy Act (“MEPA”), Mont. Code Ann. § 75-1-101 through § 75-1-324, requires state agencies to carry out the policies in part 1 of MEPA through the use of a systematic, interdisciplinary analysis of state actions that have an impact on the human environment. To this end, MEPA has two central requirements: agencies must consider the effects of pending decisions on the environment and on people prior to making each decision; and, agencies must ensure that the public is informed of and participates in the decision-making process. Through the “Environmental Impacts” and “Human Health and Safety” analyses, reviewers accomplish this first important requirement of MEPA. This appendix provides basic information regarding MEPA with which reviewers should be familiar before undertaking their analyses of “Environmental Impacts” and “Human Health and Safety” criteria statements.

1. Terminology used in the *RPPC*: short-term, long-term, direct and indirect adverse impacts.

The *RPPC* states that **short-term**, **long-term**, **direct** and **indirect** adverse impacts will be evaluated. “Short-term” and “long-term” adverse impacts are not specifically discussed in MEPA. These terms, however, should be used by reviewers to subjectively categorize the duration of adverse impacts potentially presented by a project.

The Montana EQC guide to MEPA provides the following definitions of “direct” and “secondary” (rather than indirect) impacts.

- **Direct impacts** are those that occur at the same time and place as the action that triggers the event.
- **Secondary impacts** are those that occur at a different location and/or later time than the action that triggers the effect.

2. MEPA evaluations apply to the “human environment.”

Reviewers should be aware that the MEPA analysis of adverse impacts applies to the “**human environment**.” The MEPA definition of the term “human environment” includes, but is not limited to “biological, physical, social, economic, cultural, and aesthetic factors that interrelate to form the environment...[E]conomic and social impacts do not by themselves require an EIS...” but when an EIS is prepared, “economic and social impacts and their relationship to biological, physical, cultural and aesthetic impacts must be discussed.” MEPA Model Rule II (12).

3. What is a “significant” adverse impact, and what is a “minor” adverse impact?

The determination of the “**significance**” of an adverse impact on the human environment involves the consideration of several factors, as set forth in MEPA Model Rule IV. The standard

set forth in this rule is somewhat subjective, and reviewers should be familiar with the rule to make a determination of the significance of adverse environmental impacts. Additionally, there is a library-full of case law (speaking metaphorically) on what constitutes a “significant adverse environmental impact.” Questionable or borderline determinations should be referred for a legal opinion.

MEPA Model Rule IV sets forth the following criteria for determining the significance of an impact on the quality of the human environment:

- (a) the severity, duration, geographic extent, and frequency of occurrence of the impact;
- (b) the probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;
- (c) growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;
- (d) the quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- (e) the importance to the state and to society of each environmental resource or value that would be affected;
- (f) any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and
- (g) potential conflict with local, state or federal laws, requirements or formal plans.

“**Minor**” adverse environmental impacts are adverse environmental impacts that do not rise to the level of significance.

4. “Mitigation” under MEPA.

Mitigation reduces or prevents the undesirable impacts of an action. Mitigation measures must be enforceable. MEPA Model Rules II(14) and V(2)(h) define mitigation as: avoiding an impact by not taking certain action or parts of an action; minimizing impacts by limiting the degree or magnitude of an action and its implementation; rectifying an impact by repairing, rehabilitating, or restoring the affected environment; or, reducing or eliminating an impact over time by preservation and maintenance operations during the life of an action or the time period thereafter that an impact continues. Examples of mitigation include designs, enforceable controls, or stipulations to reduce the otherwise significant impacts to below the level of significance.

ATTACHMENT B

Supplemental Information Form (to be utilized by reviewers)

Results of Superfund Response Actions – Supplemental Information

Recovery Period and Potential for Natural Recovery – Supplemental Information

Applicable Policies, Rules and Laws – Supplemental Information

- Additional permits necessary to complete the project on schedule.
- Additional deeds, easements or rights-of-way necessary to complete the project on schedule.
- Additional communication and coordination with local entities necessary to complete the project on schedule.
- Additional measures necessary for compliance and consistency with other laws, rules, policies, or consent decree requirements.

Resources of Special Interest to the Tribes and DOI – Supplemental Information